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FIRE ENGINEERING

The Journal of the Fire Protection Profession Since 1877

91, No. 6 JUNE, 1938 Member A.B.C.—A.B.P.

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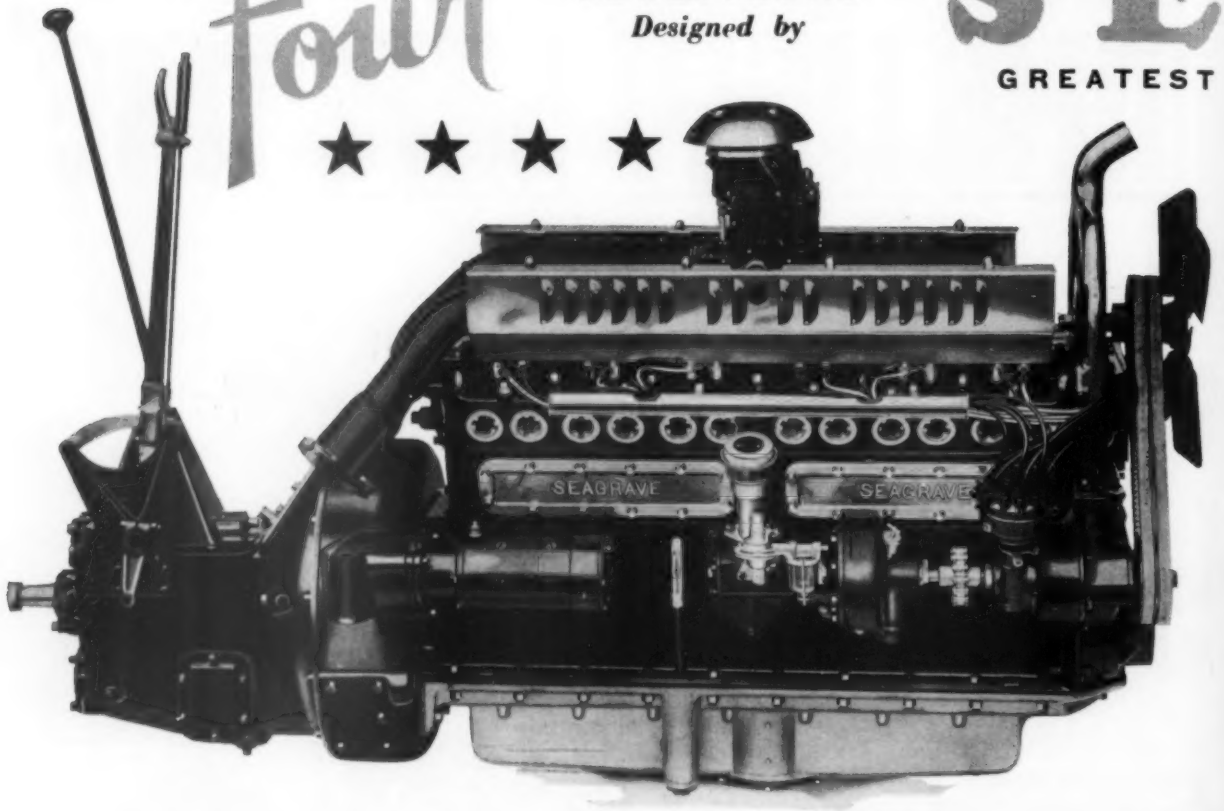

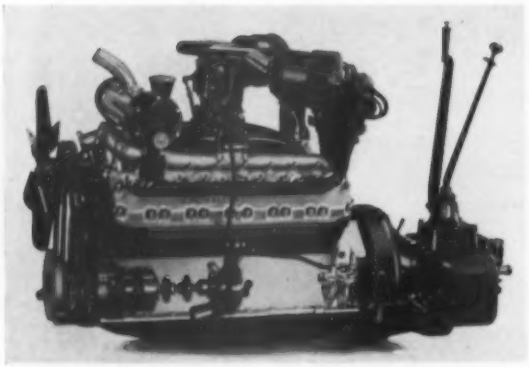

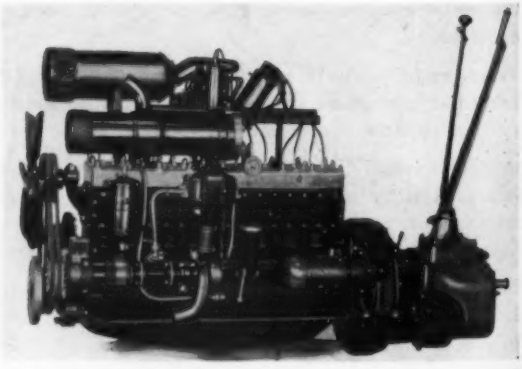

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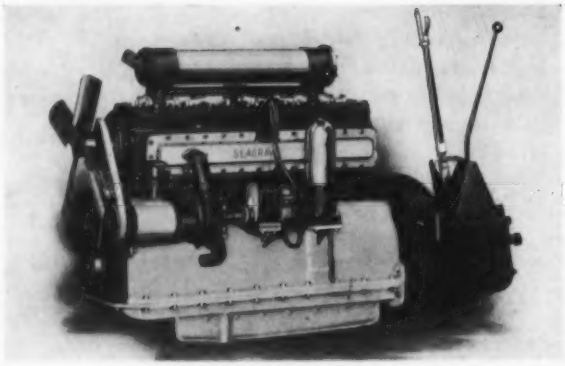

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FIRE ENGINEERING

The Journal of the Fire Protection Profession Since 1877

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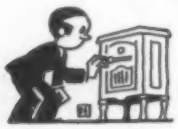
Assistant Editor



Our Unseen Audience

IT has been our guess, based on talks we have had with some of our subscribers, that at least five people on the average read each copy of FIRE ENGINEERING.

● Along this line, Thos. H. Poole, Fire Chief of the Denver and Rio Grande Railroad, at Salt Lake City, has just written us this interesting comment:

> **"I certainly enjoy FIRE ENGINEERING. When my copy comes each month I read it all the way through. It has been a great help to me in my work. *When I get through with my copies I pass them along to my firemen and they like to read them, too.* I think every man in every fire department should read this wonderful magazine."**

● The press run of this issue is 6,800, which means that it will probably be read by somewhere in the neighborhood of 35,000 or more people directly concerned with the business of fire extinguishment and fire prevention. The more the merrier.

The Publishers

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Audit Bureau of Circulations
Associated Business Papers

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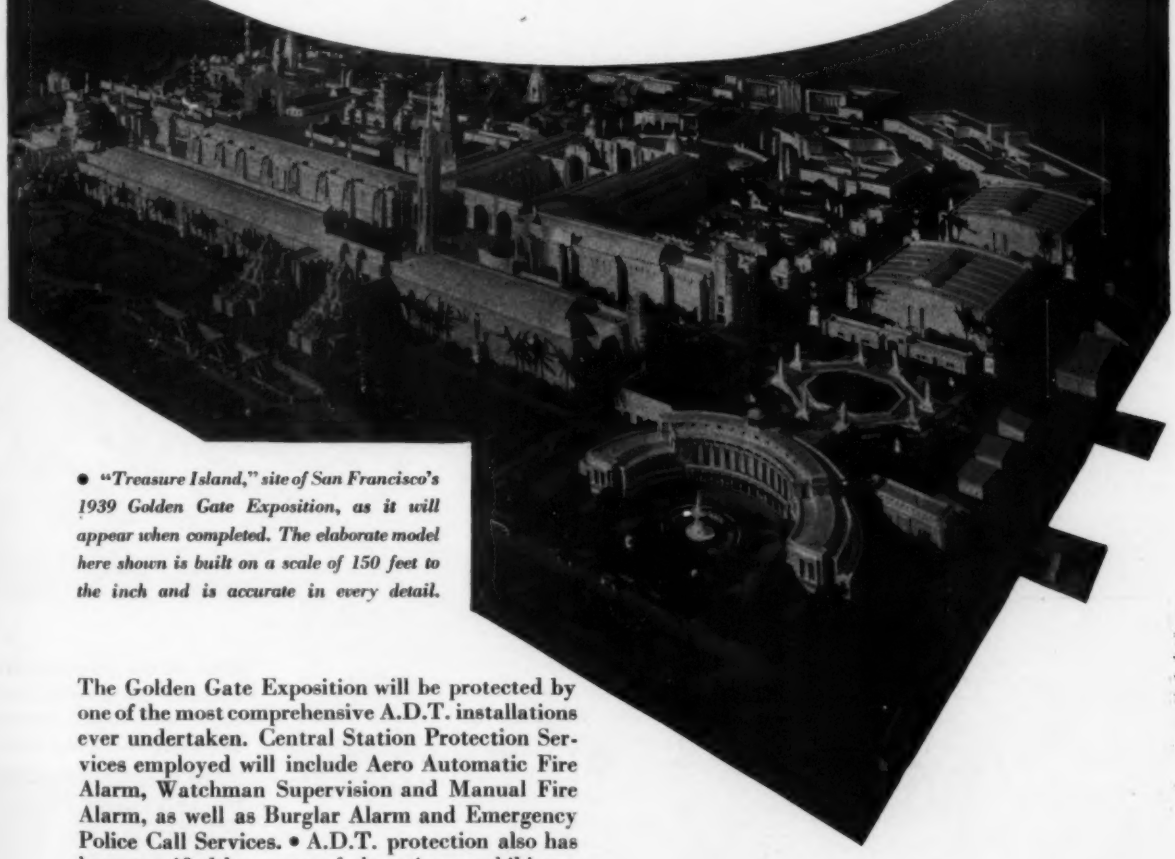
PROTECTING A $50,000,000 INVESTMENT

The 1939 Golden Gate Exposition in San Francisco, representing an investment of $50,000,000 in public buildings and other construction, presented a serious and complex problem in fire protection. After thorough consideration of methods available for meeting the fire hazard, officials of the Exposition, in consultation with representatives of the insurance underwriters, awarded the contract for fire protection signaling systems to A.D.T.

In determining on A.D.T. protection, the Fair officials were influenced by the performance records of A.D.T. protection at other important expositions held in recent years, including "A Century of Progress" at Chicago, the Texas Centennial Exposition at Dallas, and the Great Lakes Exposition at Cleveland, all of which were protected by A.D.T. At none of these expositions did any fire result in more than trivial loss.



• *"Treasure Island," site of San Francisco's 1939 Golden Gate Exposition, as it will appear when completed. The elaborate model here shown is built on a scale of 150 feet to the inch and is accurate in every detail.*

The Golden Gate Exposition will be protected by one of the most comprehensive A.D.T. installations ever undertaken. Central Station Protection Services employed will include Aero Automatic Fire Alarm, Watchman Supervision and Manual Fire Alarm, as well as Burglar Alarm and Emergency Police Call Services. • A.D.T. protection also has been specified by many of the private exhibitors.

Controlled Companies of **AMERICAN DISTRICT TELEGRAPH COMPANY**

155 Sixth Avenue, New York, N. Y. *Central Station Offices in all Principal Cities.*

A·D·T

Electric Protection Services

AGAINST FIRE · BURGLARY · HOLDUP

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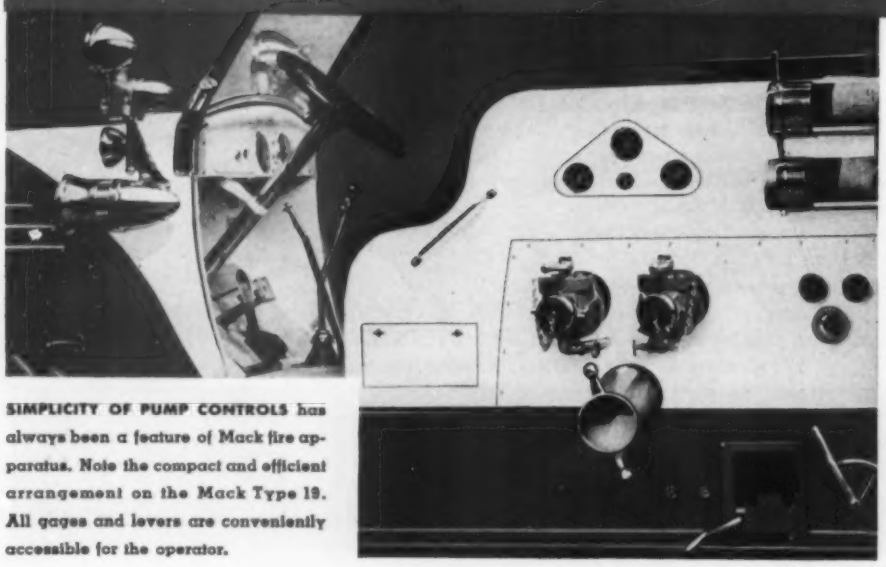
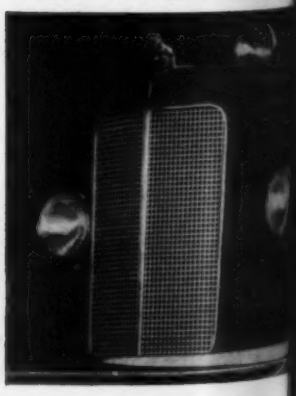


SIMPLICITY OF PUMP CONTROLS has always been a feature of Mack fire apparatus. Note the compact and efficient arrangement on the Mack Type 19. All gages and levers are conveniently accessible for the operator.

NEW HOOD AND RADIATOR DE enhances the distinctive and impr appearance of the new Mack Ty Streamlined in design and efficiency,



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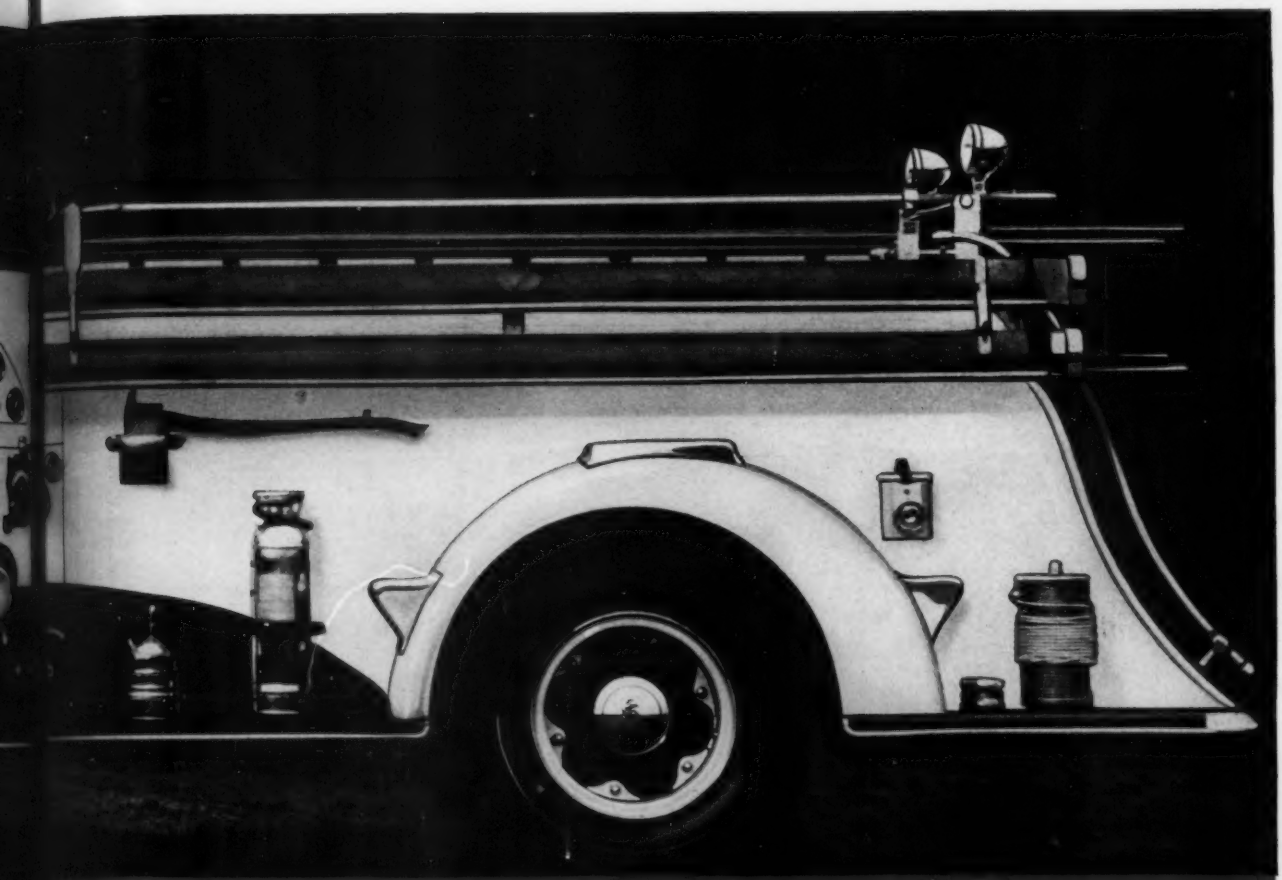

Fire Fighter

FOR 27 years the development of every Mack fire apparatus has been a process of constant improvement. Now—out of Mack's long experience, vast resources and unrivalled engineering facilities comes a new and improved version of the famous Type 19, 1000-gallon pumper.

It's Mack-built throughout to rigid standards of high quality. A new and more powerful engine provides ample reserve for the toughest grades or most grueling continuous pumping service.

Fire chiefs have long praised the mechanical excellence of the Type 19. Today with its modern streamlined styling it shares the acclaim won by other Mack pumpers as "the best looking fire apparatus ever built."

Before you replace present equipment, investigate the modern line of Mack apparatus. You'll get a new sense of pride seeing your city's name on one of these streamlined beauties. Greater security, too, because Mack-built means unmatched stamina, dependability and efficiency. Remember:—MACK HAS THE FACILITIES TO BUILD THE FINEST IN FIRE APPARATUS—AND DOES!

NEW MACK 1000-GALLON TRIPLE COMBINATION PUMPING ENGINE

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A Delayed Alarm — due to insufficient or poorly placed alarm boxes — very often results in the complete destruction of a local industry.

"There is practically no city where there are enough fire alarm boxes!" — United States Chamber of Commerce.

Think what that means to a community . . . the loss of not only an industry but of wages, taxes and, frequently, some of the population once employed in that plant.

Provide ample means of sending alarms and fire losses are, at once, materially lowered.

Check up on conditions in your town, then get in touch with GAMEWELL, the name that means adequate fire protection.

THE GAMEWELL COMPANY

NEWTON UPPER FALLS MASSACHUSETTS

FIRE ENGINEERING

The Journal of the Fire Protection Profession

Volume 91 JUNE, 1938 No. 6

With the Editor

Sixteenth Anniversary This year marks the sixteenth anniversary of the New England Association of Fire Chiefs, and, likewise, sixteen years of commendable service to the public in the New England states.

Since the formation of the Association, one individual has stood out conspicuously, and has continued to guide the affairs of the Association: Chief John W. O'Hearn, Secretary-Treasurer.

No business man has ever guarded the finances of his company more faithfully than has Chief O'Hearn those of the New England Association; and no Association official has ever taken the interests of his organization more to heart than he.

It is not surprising therefore, that that Association has continued to grow in strength and influence in its sixteen years of life.

* * *

Sustaining Memberships Aid I. A. F. C. A new class of members in the International Association of Fire Chiefs, approved by the Board of Directors at their annual meeting in New York in January, promises to be of material benefit to the Association in its big educatonal program. This new classification, Sustaining Membership, will provide needed revenue and, at the same time, will prove mutually beneficial to the members and the Association.

Education of Fire Department personnel in modern methods of fire control will stimulate, on a wide scale, the purchase of new apparatus and equipment. The manufacturers, to whom sustaining membership will be extended, will thus profit from this activity. The Association, as before noted, will benefit from the revenue secured from the new memberships. The plan should prove a highly satisfactory means of helpful cooperation.

* * *

To Demand Efficient Fire Service A bill has been introduced into the British House of Commons which, if passed, will make obligatory efficient fire service in urban and rural fire districts.

The Home Secretary will be given power to insist on standards of efficiency. He will have authority to set up a Fire Service Commission, which will deal with the arrangements between fire authorities for cooperative service, and to set up a Fire Service Board in any area where he is not satisfied that an efficient fire service exists. The Board will submit a scheme which, on approval, the local authority will have to carry out or be charged with the cost in default.

While such centralization of power in the national government would be quite generally opposed in this country, it does offer an effective means under the British form of government for bringing the fire service up to the mark.

A lot of American Fire Departments might profit by such federal prodding, particularly where municipal officials consistently neglect the urgent recommendations of Fire Chiefs for needed improvements.

Fred Shepperd

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A Statewide Program for Efficient Training of Firemen

The Vocational Division of the Massachusetts State Department of Education Cooperates with Other National and State Agencies in the Establishment of Schools for Firemen

By M. NORCROSS STRATTON

Assistant Director, Division of Vocational Education.
Supervisor of Firemen Training, Massachusetts State Department of Education

As the fire siren sounds out its sudden and insistent warning to crowded streets a discriminating observer will note several happenings of more than passing moment. He will note the policemen on the beat and in cruising cars swing into vigorous action to open a traffic lane for approaching fire apparatus.

He will note that the traffic lights change to red to stop the motion of ordinary traffic. He may see men and apparatus from neighboring communities responding as a matter of routine, as well as men and apparatus from the community in which the alarm has been raised.

A Well Equipped Drill Tower Simplifies Instruction of Men

These happenings indicate a Fire Department which has recognized the value of mutual aid and one which has learned to make use of other public service agencies when such agencies are organized to render a specific service needed by the Fire Department.

The enlistment of a State Department of Education to assist in the training program of Fire Departments is an additional item of evidence illustrating a progressive point of view of the Fire Chiefs in this country. The State Department of Education in Massachusetts has had a part in this program now entering upon its sixth year.

The success of the firemen training program in Massachusetts we believe is due to the following factors.

1. The foresight and continued active interest of the Fire Chiefs' Club of Massachusetts.
2. A strong and active advisory committee of Fire Chiefs.
3. A central administrative agency responsible for organization and supervision of classes; the Division of Vocational Education, Massachusetts Department of Education has served in this capacity.
4. An experienced educator in charge of a definitely organized program for training drillmasters and instructors in the selection and organization of teaching content and in methods of teaching.
5. A trained corps of firemen instructors in the firemen training classes.
6. An organized system of regular monthly meetings of the instructors which combine professional, personal and social interests of the group.
7. A definite plan of operation and strict adherence to the plan. This plan is available in printed form.
8. A policy of enrolling in classes only firemen in service.
9. Awarding of certificates upon the basis of definite requirements.
10. The employment of a professional drillmaster, operating from the State Department office, to supervise classes in cooperation with professional vocational educators.

Purpose of the George-Deen Act

Under the so called George-Deen Act, federal funds have been allocated to the states for the promotion, expansion and development of Vocational Education in the states. Definite portions of these funds may be used by the State Departments for training for the public service occupations. Section 6 of the George-Deen Act reads in part as follows:

". . . such moneys as are provided by this Act for trade and industrial sub-

jects, including public and other service occupations. . . ."

The language of the George-Deen Act specifies the source—funds for trade and industrial subjects, including public service occupations—and at the same time places a direct responsibility upon the trade and industrial sections of state vocational educational agencies, when called upon, to assist in training programs for this purpose.

Programs receiving support from these federal funds must, under terms of the act, be conducted under the general supervision of the Vocational Division of the State Department of Education. The availability of this money makes it possible for a real program to be developed.

Over 4,000 Receive Certificates

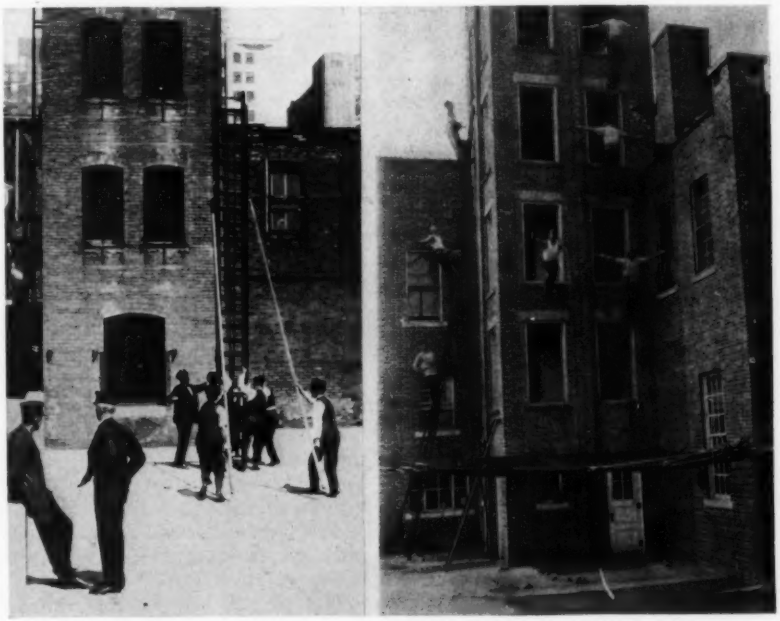
In Massachusetts over 4,000 members of organized Fire Departments have received certificates testifying to completion of the zone school courses. Delegated by their local Chiefs and coming from 250 or more towns, from the smallest hamlet to the largest cities, these men have attended zone schools in all sections of the state. Some have traveled a hundred miles each Saturday to secure instruction. Classes have been held on Saturday afternoons or on week-day evenings during the daylight saving period of the year. The "Sunday School" has not been unknown and has had a moral effect not entirely out of character with the more traditional form of "sunday school," since the theme of service is dominant.

Qualifications for Drillmasters

Instruction has been given by a corps of 40 drillmasters, who have each completed at least 60 hours of intensive training on methods of teaching. Every man in the group has been designated by the Chief of his local department as the drillmaster for the local department. Upon the basis of that qualification—his fitness of personality and his experience in actual fire-fighting service and the completion of the instructors training course in methods of teaching—he has been delegated by his Chief to serve on the staff of zone school instructors.

Functions of Corps of Drillmasters

There are two distinct functions which this corps of instructors has served. (1) The courses are extremely practical because the content has been selected and organized into teaching units by these practical men. The supervisor in the department of education presented the educational principles upon which the selection and organization should be made and these men applied the principles in relation to their own business in which they had already achieved in rating of the expert. (2) The courses



Left—Raising Extension Ladder Properly Requires Practice. Right—Ladder Drills Develop Confidence and Agility in the Men

are practical also because these men can combine practical experience in fire fighting and a command of fundamental teaching techniques.

The courses themselves consist of two types of lessons.

(a) Organized drill in evolutions.
(b) Instruction in the technical phases of fire fighting.

The evolutions include:

A. Knots and hitches.
   (1) Tying bowline knot.
   (2) Hoisting tools and appliances.
B. Wall and roof ladder work.
   (1) Raising wall ladder—2 men.
   (2) Dogging ladder.
   (3) Raising roof ladder.
   (4) Bracing long ladder.
C. Wall and roof ladder work.
   (1) Raising 35-foot extension ladder—3 men.
   (2) Raising 55-foot extension ladder with poles—6 men.
D. Elementary hose work.
   (1) Taking hose off wagon.
   (2) Reducing line.
   (3) Making Siamese connection.
   (4) Replacing burst length.
   (5) Picking up and loading hose.
   (6) Repairing leak with burst hose jacket.
E. Entering buildings with lines.
   (1) Carrying line up stairway.
   (2) Backing line out of building.
   (3) Carrying line up ladder.
F. Wet hose drill.
   (1) Opening hydrant.
   (2) Shutting down hydrant.
   (3) Operating booster line.
   (4) Drafting water.
G. Advanced ladder work.
   (1) Raising aerial ladder.
   (2) Bracing long ladder.
   (3) Scaling ladders.
H. Advanced wet drill.
   (1) Connecting to pumper.
   (2) Shutting down pumper.
   (3) Operating Baker cellar pipe.
I. Tools and appliances.
   (1) Chopping hole in floor.
   (2) Forcing door with Detroit door opener.
   (3) Pulling ceilings.
J. Rescue drill.
   (1) Descending rope.
   (2) Lowering man with rope.
K. Gas mask drill, Rescue work.
   (1) Putting on gas mask.
   (2) Applying artificial respiration.

The technical topics include:

Ventilation
Overhauling
Inspection
Elementary Hydraulics.
Types of Fires and Methods of Fighting.

Conferences and classroom lessons are as follows:

A. Fire Extinguishers.
   Care of Hose.
B. Ventilation.
   Forcible Entry.
C. Overhauling.
D. Inspection of Equipment and Apparatus.

E. Elementary Hydraulics.
F., G. and H. Types of Fires: Size-up and Methods of Fighting, including Ventilation and Forcible Entry.
I. Fire Inspection and Prevention, Fire Laws, Arson.
J. Forest Fires.

Conducting of Zone School Classes

Zone school classes are conducted in series of ten sessions each. An added feature, now in its second year of operation, is the special course for the single community. This is in line with the wish, often expressed by the Advisory Committee, that a training program should develop within every single department in the state. In the initial stages the smaller communities must receive assistance. The drillmaster currently assigned for duty with the state department office organizes these special courses, after conference with the local Chief. He plans assignments of instructors needed and supervises the work as it progresses.

Many other departments have been stimulated by the zone school contacts to organize their own training programs. The Manual for Instructors, developed in conference with the Instructors, and the pamphlet "Organization and Administration of Massachusetts Zone Schools for Firemen Training" by the Supervisor for Firemen Training, have been widely sought and used in this connection. A series of twelve printed booklets on special fire fighting subjects has proved of great value in the zone school and special classes and in the self-sustaining department groups.

Mutual Cooperation of All Agencies

Perhaps the most important factor in the success of the whole program has been the growth of mutual understanding and friendship among all agencies involved in the undertaking.

The Fire Chiefs Club, the New England Fire Chiefs Association, the Advisory Committee, the Massachusetts Farm Bureau, the Insurance interests, the Fire Marshal's office and other agencies have all cooperated to the fullest extent in attitude and action.

The disposition typical of the local Chiefs can be portrayed in no better manner than by including the following letter just received from a Captain Drillmaster:

"I have been detailed as a District Chief by Chief D ———. The Chief said that he based his judgment on my past record, but especially the good work in conducting the Zone School Classes.

"My reason for writing is to express to you and your aids, sincere appreciation for the help and knowledge given me. Without it, I know that I could never have succeeded, or even made a start as an Instructor."

Other Outcomes of the Service

The service has had many outcomes not envisioned by those in the early stages. Besides the actual organized instructional service, the following variations have occurred:

The staff drillmaster in consultations with local Chiefs on problems of training, equipment and the like.
Help in providing speakers or other service for regular monthly meetings of local departments.
Formal periodical "inspection" of local drill sessions.
Editorial assistance for publication of Fire Department articles for local publications.

Prospects for Expansion of the Program

Education in the fire service has now become an established function of the Massachusetts Vocational Education Division. The work will expand under stimulus of the National program fostered by the International Fire Chiefs Association under direction of President Tierney, Chief Scott and the members of the Educational Committee in cooperation with the Federal Office of Education.

The firemen and the Chiefs have endorsed the program in hundreds of letters we have on file.

The public is more concerned today than ever before about the operating efficiency of all departments of the government and is recognizing the value of skill and ability on the part of those engaged in public service.

With all co-operating—with increased support and with unselfish service from those engaged in the work we will soon reach our goal—an opportunity for organized, systematic training for every fireman in every Fire Department in Massachusetts.

Better Rating for Teaneck

Teaneck, N. J., has had its rating changed from Class C to B, and is said to be the smallest town in the state to have such an insurance classification. Frank A. Murray is Chief. The department personnel has been increased, and the men are given training at a drill school.

Illinois Fire College in June

The fourteenth fire college held under the direction of the Illinois Firemen's Association is to be held at the University of Illinois, Champaign-Urbana from June 14 through June 17. There will be sessions in the mornings and afternoons and open forums in the evenings. On one night, there will be a vaudeville show, and several afternoons have been set aside for baseball games.

Corespondence

What Is the Longest Service?

To the Editor:

We would like to know who is the oldest Fire Chief in point of service, and also the oldest fireman in point of service in the United States. We have a Captain in our Department a Louis Goodman, who has been a Captain for the past thirty-seven years. We feel that this might be somewhat of a record for continuous service in said position. Any information along this line will be greatly appreciated.

Yours truly,
GEORGE F. PATRICK
Denver, Col.

* * *

A Notable First

To the Editor:

I have read with much interest your series of articles "Some Notable Firsts in the Fire Service." The following may be of some value to you.

The Niagara Engine Co. No. 1, New London, Conn., has a claim to fame in that it owned what members say was the first automotive chemical engine in the United States. The balky engine was called "Old Maud." She was purchased from the LaFrance Engine Company, Elmira, N. Y., through the Combination Ladder Company, Providence, in September of 1903, at a cost of $5,500.

The apparatus was not driven by a gasoline engine, as automobiles are today, but by a steam engine. She was not equipped with a pump but had a chemical tank and carried hose.

Yours truly,
WILLIAM C. PECK
New London, Conn.

* * *

True or False

To the Editor:

In your March issue of FIRE ENGINEERING, under the course of "Promotional Study," you have a false and true question as follows:

No. 6. T. F.—When conflicting orders are received from Superior Officers the member receiving same should always carry out the first order given him.

The above question is marked *True* in your April issue.

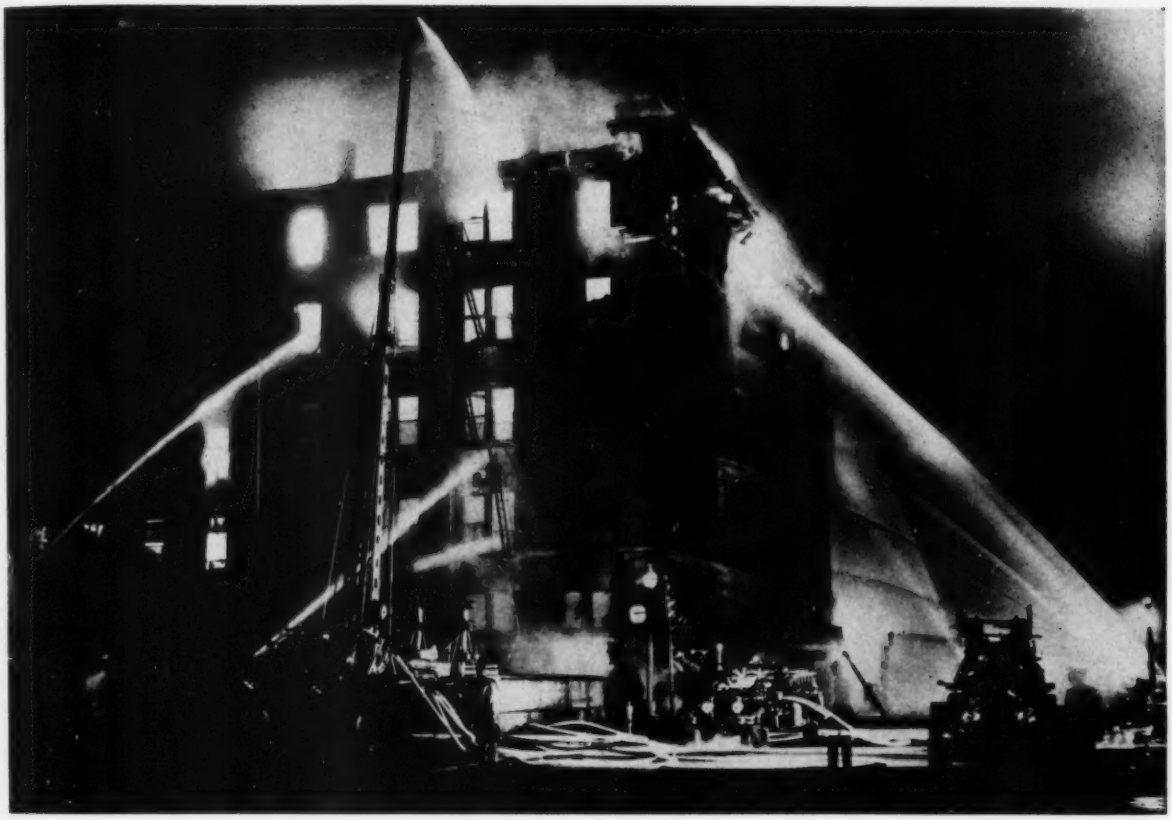
Now in your false and true questions, No. 18 reads:

No. 18. T. F.—It is essential when receiving conflicting orders to call to the attention of the Officer giving same the fact of having received previous orders.

This question is marked *True*.

I believe that you have a mistake in No. 6. The word *always* makes that a false question, because if the officer giving the conflicting order insists upon you carrying it out after you have informed him of the previous order, you have no alternative but to ask who he is, name, rating, etc., and then proceed to carry out his order. No. 18 you have marked *True*, which is right.

Very truly yours,
GEORGE H. YAEGER,
Lieutenant, Fire Department,
Baltimore, Md.



Early Morning Fire Claims Lives of Guests of Thirty-Year-Old Terminal Hotel

26 Guests Die in Hotel Fire

Blaze in Basement of Thirty-Year-Old Atlanta, Ga., Hotel Flared Through Building and Cut Off Escape of Many Persons

WHILE thousands of persons looked on, and the Atlanta, Ga., Fire Department did all they could to carry out rescue work, twenty-six guests of a thirty-year old hotel, were burned to death, or died later from their injuries.

The cause of the fire is unknown, but it is the belief of Chief O. J. Parker that a boiler in the basement exploded. The rapidity with which fire spread from the basement to the roof of the five-story brick and frame building, seems to substantiate the theory that flames were blown all over at once. The fire started at 3 a.m., May 17, while most of the sixty-five guests were asleep. The Terminal Hotel was near the railroad station and housed many railroad men. It was a one-dollar-a-day-and-up type of hostelry.

A bellhop, of many years' service, was in the lobby when the fire broke out. He claims that he heard a messboy scream, "Oh, Lawdy, fire!" There was a muffled blast and flames spread upward. He rushed for the elevator to bring down guests. Fire spread so rapidly that he was forced to abandon the cage on the second floor and run for the fire escape.

The seventy-eight-year old clerk ran for the switchboard to warn the guests. The blaze burned out the connections, and the clerk was badly burned before he could get away.

When the first fire companies arrived, persons were at the front windows frantically calling for help. Heat and smoke hampered firemen in getting rescue work started.

Alarms were sounded in rapid succession. Firemen arrived to find the building a mass of flames. Flames played over fire escapes on the Mitchell Street side and at the rear so that they were useless. Firemen were able to bring some persons down ladders. A few slid down ropes. Many escaped by jumping. Those who tried to escape by way of the stairs or the fire escape were burned to death.

The fire was declared officially out twelve hours after the first alarm had been sounded.

Only the shell of the building was left. Firemen and rescue workers removed heavy pieces of debris in searching for bodies of victims. It was a slow job. Bath tubs, beds, and doors were piled up in hopeless confusion. Bodies that were discovered were mangled and charred almost beyond recognition.

A tractor and a hoist were furn-

Views of the Ruins of the Old Terminal Hotel in Atlanta, Ga., After the Fire Was Extinguished

ished by the county to help in lifting large timbers.

A blackened wallet or a little notebook would be found as a clue to some one who had died in the fire. The hotel register was destroyed and identification of the missing was difficult.

Fourteen persons were saved by sliding down a rope dangling from a painter's scaffold that was suspended near the roof.

Three floodlights were used to illuminate the wrecked interior.

It was the most disastrous fire in the history of the city. When news of the fire spread, many of the residents turned out to watch it. An estimate was made that from five to ten thousand persons were jammed against the police lines.

Blackened ruins are all that is left of the famous hotel, that was the first hotel to greet the visitors to the city as they left the railroad station.

USES OUTSIDE PROTECTION FUND FOR PURCHASE AND REPAIR OF EQUIPMENT

Mattoon, Ill., Ordinance Provides for Fees to Be Paid by Individuals Outside City Limits for Fire Protection, the Same to Be Applied Solely to Those Purposes

ORDINANCES of the city of Mattoon, Ill., passed in 1929, reaffirming those of 1926, provide that individuals outside the city limits, in order to obtain the advantages of the services of the city Fire Department, must pay a fee of $50 for each of the premises owned by them. This payment will entitle them to fire protection for the term of five years.

The ordinance further provides that all of the funds thus accumulated shall be expended for the purpose of repair of present equipment of the Fire Department or for the purchase of new equipment.

Regulation of Fire Protection Outside City Limits

The ordinance in question is as follows:

"Whereas, divers property owners, residing without the city limits of the city of Mattoon, but within its immediate vicinity, whose names are on file in the office of the City Clerk, desire to have the protection of Mattoon City Fire Department, and have and are willing to contribute funds to the city of Mattoon for the purpose of installing new apparatus in the Fire Department of said city, and, whereas other like property owners may hereafter desire to contribute to the support of said Fire Department, and it is the desire of the city of Mattoon to furnish to such persons and their assigns the use of the Fire Department for protecting their property located without the city limits;

"And whereas, it is deemed expedient and proper that the city of Mattoon should declare its obligations to said property owners and should adopt regulations controlling the use of its fire apparatus outside of the city limits, and in order to fulfill said obligations and establish such regulations, the following ordinance was adopted June first, 1926, and the said city desires to continue such relations until such future time as it may deem it necessary to cancel same, Therefore said ordinance is herewith reenacted:

Outside Protection for Five Years

"That the city of Mattoon will furnish to the property owners whose names and applications are now on file in the office of the City Clerk and who have complied with this ordinance, and those who may hereafter comply with the terms of this ordinance, the use of its Fire Department in the event of fires in their respective present residences or out buildings, for the period of five years from the date of their compliance with the terms of this ordinance; Provided, that nothing in this ordinance contained shall be construed to bind the city of Mattoon to furnish only the usual and customary services of its Fire Department as the same are now enjoyed by the residents of the city of Mattoon and then only when said Fire Department is not in service at a fire in the city of Mattoon. Provided also, that at no time shall all the fire-fighting apparatus of said department be taken beyond the corporate limits of said city, but at all times there shall be kept in said city one complete unit of fire-fighting apparatus, with a sufficient number of members of the department to operate the same; provided, also, there shall be no liability upon the part of the city for its failure to furnish fire protection thereunder from any cause whatsoever.

Must Be Within Five Miles of City Limits

"The names of those complying with this ordinance with the location of their property shall be posted in a prominent place in the Fire Department station and any donor to said fund may assign his rights to fire protection to his premises to the purchaser of said

(*Continued on page 267*)

Pyromania—a Cause for Growing Concern

An Intensive Study of the Causes of Pyromania, Methods of Combatting It and the Confinement and Care of Those Afflicted with the Disease

By GEORGE O. Q. MANSFIELD
Chief of Fire Investigation
Massachusetts Department of Public Safety

INCENDIARISM continues to be one of the major causes of fire losses in the United States. Annually, millions of dollars worth of property is consumed by fires which have been deliberately set. Aside from the large insurance loss, there is also a vast total loss due to the fact that much of the property burned is never rebuilt, with the ensuing loss of taxable revenue which vitally affects every community. Consequently, every fire prevention program should include a drive against the fire bug. The most effective method to check the activity of the incendiary is arrest and prosecution.

Fire Bugs Cost Nation $7,000,000

A national organization engaged in fire protection and prevention, in its report of fire losses for 1936, gave the loss from incendiarism as $6,850,000, with a loss of $1,850,000 ascribed to fires of suspicious origin, so that on this basis it would appear that losses which may be attributed to fire bugs total upward of at least seven million dollars. Records of past years show that incendiarism has caused even greater losses.

It has been noticeable in the past few years that there has been a decrease in the number of fires which have been set to defraud insurance companies, and for spite or revenge. There has been, however, a decided increase in the number of fires which are directly attributed to persons afflicted with pyromania. This type is to be found everywhere and furnishes fire and police officials with a problem which has many ramifications.

What Massachusetts Has Done to Control the Evil

Massachusetts authorities have gone beyond arrest and prosecution of this type and have endeavored to learn more about the cause and background of the individuals who are afflicted with pyromania. This State has accomplished much along this line and, in many cases where the subjects fail to respond to treatment, such subjects have been permanently confined in proper institutions, thus, at least being removed as a danger to society; in other words, they have been taken out of circulation, so to speak.

George O. Q. Mansfield

Through the courtesy of Commissioner of Public Safety Eugene M. McSweeney and State Fire Marshal Stephen C. Garrity, of the Massachusetts Department of Public Safety, FIRE ENGINEERING is bringing to the fire service of the country the benefits of the study made in Massachusetts on the subject of "Pyromania," by publishing an article which has been especially prepared by George O. Q. Mansfield, Chief of Fire Investigation of that department.

What Is a Pyromaniac?

At the outset, it must be pointed out that the question "What is pyromania?" has long been an unsolved riddle and, while the exact cause of pyromania is not known, much has been learned in recent years concerning the subject and the characteristics of those who are afflicted. The word "pyromania" is derived from two words; first, "pyro," meaning fire and heat; and second, "mania," meaning excessive and unreasonable excitement and enthusiasm or violent desire or passion. The word "pyromaniac" is also used and many times incorrectly, due to the fact that "maniac" means raving with madness, raving lunatic or a madman; consequently, unless the person is violently insane, the word "pyromaniac" does not apply. However, in actual practice, the word "pyromaniac" is used to describe all persons who set fires for reasons other than spite, revenge or to defraud insurance companies, so that we must look to the word "pyromaniac" more as a descriptive term, than to apply it to all people who set fires. One of the foremost law dictionaries gives the legal definition of "pyromania" as "an irresistible propensity to burn"; while another authority explains it by saying: "Fire setting under an abnormally conditioned impulse by a person not determinably insane." This latter definition, to my mind, appears to be most substantially correct and, at least, the most practical. Experience has shown that the majority of actual cases follow within this definition.

Pathological Arson

Some authorities, and more so in recent years, have termed such fire setting as *"pathological arson."* Again looking to the definition, we find that *pathological* means "morbid," "due to disease," "pertaining to the passions or emotions."

As *pyromania* usually predominates among imbeciles, epileptics, de-

ments, sex perverts, and sex degenerates, it would seem from the definition of *pathological arson*, that the words have been well chosen for burnings resulting from *pyromania*.

Pyromania Can Only Be Recognized by Acts

If the state of mind, or the mental abnormality of the persons in the

Four Buildings Was Her Record

throes of *pyromania* could be easily recognized, the many problems arising from the acts of such persons could be readily solved by preventive measures being taken, before these persons had an opportunity to satisfy their desires. In other words, if we knew their condition in advance, such persons could be given proper medical treatment, or, at least, be confined to an institution where they could do no harm.

Unfortunately, however, it is not until the damage has been done, and the person apprehended, that he or she is found to be afflicted with *pyromania*, and, likewise, such may even be the case with those termed determinably insane, or imbeciles, or epileptics. This condition is due to the fact that the mental state of those thus afflicted manifests itself in no other way than through this propensity to set fires, as they are often possessed with extreme cunning and unusual cleverness, which make it more difficult to discover their actual status.

Cases Becoming Better Understood

Fortunately, this type of individual is becoming better understood today, due to the fact that their cases are now being studied by *psychiatrists* and *psychologists*. No longer are they, or, at least they should not be, just convicted as criminals for setting fires, and sent to jail as punishment. It is true—

First, they should be removed from Society for the safety of life and property, but,

Second, their cases should be treated properly, with a view to affecting a possible cure for their diseased minds,

and then, if incurable, they should be safely confined in the proper institution for the remainder of their lives, or, until pronounced safe to again be released among Society.

Insane Confined in Suitable Institution

If the fire setter is found to be legally insane, then there is little left to do but to confine such a person in an institution for the insane, but, at the same time, in such an institution where he or she will not be a menace to insane inmates of other types. By this I mean, that it would not be wise to send a person with an insane desire to set fires to a general hospital for the insane. Such a person would require a more strict confinement. To illustrate this point may I say, that in Massachusetts, insane persons who have set fires are sent to the Bridgewater Hospital for the Criminally Insane, although we have a dozen other institutions for the insane.

It would appear that the question of *insanity* must, therefore, be decided at the outset, as we find that setting fires results, in many cases, from an irresistible impulse by persons not legally insane, as such persons may know the difference between right and wrong, and that fire setting is wrong, but yet these persons are unable to resist the impulse. If they know that it is wrong and merely answer this impulse, then there is no *defense* or *question of insanity*.

Determining the *question of insanity* differs in various jurisdictions, but it is a fixed rule of law in the majority of states that the deciding point on the question of determining the responsibility when the *question of insanity* is involved, is what is termed the *"right and wrong rule,"* that is: *"Did the defendant know the difference between right and wrong?"*

Not Guilty by Reason of Insanity

If the defendant was laboring under such a defect of reason, that he or she was unable to distinguish between right and wrong, he or she would be held *not guilty*, by reason of *insanity*, and, therefore, confined to an institution for the insane.

In some jurisdictions, provisions are made for an examination by alienists who report to the court, and the magistrate may commit, if the alienists report the defendant insane. Some States rests the question with the jury, which considers the alienists' report. In Massachusetts, the Judge may act himself, or, the jury can return a verdict of *not guilty, by reason of insanity*, or the defendant may demand a jury trial on the question of *insanity*.

If found, *not to be insane*, which occurs in the majority of cases, or, if the defendant does not *plead guilty*, then there must be a trial. If the person is, therefore, convicted, the question next to be considered is: *What disposition must be made of this case involving pyromania?* As previously stated, he should not be thrown into jail as punishment.

Set Ice House Fires and Annoyed Children

Set Four Fires and Wrote "Threat Notes" to Herself

Set 46 Fires and Transmitted 98 False Alarms

Disposition of Case Upon Conviction

Laws vary, according to jurisdiction, as to such disposition. In Massachusetts, I believe, we have the proper method. The defendants, upon conviction, are examined and declared to be *defective delinquents*, if fourteen years of age, or over, and

if below fourteen years, then they are classed as *juvenile* or *mental delinquents*. Under this set-up, such persons are sent to the Bridgewater State Farm Insane Hospital, and confined in special wards, where they are accorded the proper treatment, in an effort to cure them. Chapter 123, Section 113, of the General Laws of Massachusetts, provides for this procedure.

Cases do respond to treatment, and are carefully studied, seeking light not only upon the nature of the illness, but also the possibilities of systematic treatment. If they recover sufficiently to be paroled, they are closely supervised after leaving the institution. Our officers and local authorities are promptly notified of their release, and their whereabouts are closely checked to prevent a recurrence of their acts. No longer are they carelessly turned loose to wreak further damage upon a community.

Recently, I had a good illustration of this procedure with the recurrence of fires in a neighborhood where a *juvenile delinquent* had been returned to the care of his parents. Our inspector promptly brought him in, whereupon the boy admitted the new fires, and was quickly returned to the institution.

(*To be continued*)

Chief Corning, Seattle, Removed

Chief Claude W. Corning, Seattle, Wash., has been removed by Mayor Langlie and Battalion Chief William Fitzgerald named as head of the department.

Ex-Chief Claude W. Corning

Chief Corning was elected head in 1932 by a popular vote of the department, at the beginning of the term of the late Mayor Dore. He is now eligible for retirement.

The newly appointed Chief has been in command of a battalion in the South End of the city.

Robert Laing has been named Fire Marshal.

School Held in Asheville, N. C.

The tenth annual North Carolina Fire College and Drill School, held at the Central Fire Station, Asheville, N. C., on May 17 to 19, closed with Albert Coates, Director of the Institute of Government, Chapel Hill, delivering the commencement address and handing to 268 men either diplomas showing they had finished the four-year course, or certificates for this year's work.

Firemen from all sections of the State attended the meetings. The business sessions and lectures held in connection with the school were held at the Central Fire Station, and the drills were conducted at the Merrimon Avenue Station, which has a fire tower and equipment for this work.

The faculty of the school is composed of Assistant Chief J. C. Fitzgerald, Asheville; J. L. Groom, Wilmington; J. R. Thomas, Rocky Mount; C. L. Burkett, Salisbury; A. T. Cottrell, Lenoir, and Sherwood Brockwell, State Fire Marshal, Raleigh.

At the second day's session, Dr. Harry M. Archer, New York City, President of the International Association of Police and Fire Department Surgeons, spoke of the problems arising when accidents occur at the scene of a fire. The social event of the three-day meeting was a dance held at Central station after completion of the program.

At the closing session, the sprinkler system as a Fire Department auxiliary was discussed. Leading the discussion were Clyde Hildebrand, Canton, and Sherwood Brockwell, Raleigh, Fire Marshal and conductor of the school.

A discussion on fire streams and pump operations, was led by Chief J. L. Croom, Wilmington, and members of the school faculty composed of W. H. Palmer, Charlotte; J. L. Grimsely, Wilmington; Henry G. Ballenger, Greensboro, and Eddie Williams and Dyke Cowan of Asheville.

D. G. SPENCER.

FIRE FACTS
BY OTIS SMITH
ORCHIDS TO
F. ALBERT CLAUTICE
GENERAL CHAIRMAN OF THE JUNE FIRE CONVENTION AT BALTIMORE, MARYLAND, FOR A WONDERFUL JOB.
(HE BEGAN THIS JOB IN JUNE 1937)
PLATFORM
41st St.) & Racine Ave.
4100-S.
1200-W
CHICAGO F.D.
BOX ASSIGNMENT CARDS HAVE BLOCK NUMBERS IN UPPER RIGHT CORNER SO COMPANIES WILL HAVE NO DIFFICULTY IN FINDING THE LOCATION.
• THOMAS P. BROPHY •
CHIEF FIRE MARSHAL, NEW YORK CITY. PATROLS THE CITY'S DANGER SPOTS AND WATCHES FOR SIGNS OF ARSON. HE HAS OFTEN SPOTTED FIREBUGS AT BLAZES, IT IS SAID THAT HE CAN PICK THEM OUT BY THE WAY THEY ACT. BROPHY WAS A REPORTER BEFORE HE BEGAN HIS INTERESTING CAREER.

Employment Conditions of Policemen and Firemen

Compensation, Conditions of Employment and Retirement Benefits of Firemen

(Continued)

The Citizens' Budget Committee of New York City recently made a study of compensation, conditions of employment and retirement benefits of policemen and firemen in 293 cities in the United States.

Believing that the comparative data on the two branches of municipal service compiled by the Committee will be of interest to members of the Fire Service throughout the country, FIRE ENGINEERING plans to publish serially the essential portions of the tabulation. This third article treats of the Fire Service. Subsequent articles will consist of salary and other tabulations for both policemen and firemen.

IN only five cities in the United States are firemen employed on a three-platoon basis where they work six days a week, eight hours daily and forty-eight hours weekly. These five cities are New York, Toledo, Ohio; Erie, Pa.; Wilkes Barre, Pa., and Binghamton, N. Y. The three-platoon system in New York City is only partially operative at the present time and will not be in full force for the entire department until December 31, 1939. Prior to 1937, the entire New York Fire Department was on a two-platoon basis and worked an average of eighty-four hours per week. New York allows twenty-one days vacation yearly with pay. The other four cities allow fourteen days yearly with pay.

Vacation Arrangements

Washington, D. C., is the most liberal of all of the cities with respect to vacations. That city allows twenty-six days with pay. Washington firemen have one regular day off weekly in addition. Duluth, Minn., and Raleigh, N. C., allow only seven days vacation with pay. In Duluth they have only one day off monthly in addition to their vacation, while in Raleigh they are allowed no regular days off. Quincy, Ill., with no regular days off, allows eight days vacation with pay. Montgomery, Ala.; Cranston, R. I., and Hagerstown, Md., allow no vacation whatever with pay and no regular days off.

Syracuse, N. Y., allows twenty-two days vacation with one regular day off weekly. Hamtramck, Mich., allows twenty-four days vacation with no regular days off. With the exception of Washington, D. C.; Syracuse, N. Y., and Hamtramck, Mich., twenty-one days is the maximum vacation allowance. This is the allowance in New York, Kansas City, Mo.; Portland, Ore.; Atlantic City, N. J., and Topeka, Kan. In over eight out of every ten cities of the United States, the annual vacation allowance is two weeks or fifteen days.

There is no uniformity throughout the country with respect to the number of years firemen must serve before they become eligible for retirement. Twenty cities have no retirement plan. Four cities, Kenosha, Wis.; Salem, Mass.; Newport News, Va., and Middletown, Conn., permit retirement only for disability. In Louisville, Ky., retirement is discretionary with the pension board. Only fifteen years of service are required before retirement in Harrisburg, Pa.; Portsmouth, Ohio, and Hagerstown, Md., while Altoona, Pa., requires as much as forty-four years of service, under certain circumstances, before firemen are eligible to retire. Thirty-five per cent of the cities permit retirement after twenty years of service or less, regardless of age. In forty-seven per cent of the cities, a fireman must serve twenty-two years or more, regardless of age. In the balance of the cities, retirement is permitted after twenty years or twenty-five years upon reaching a certain age, which ranges from fifty to sixty years.

Among the cities of a million population or more, New York, Chicago, Ill., and Philadelphia, Pa., permit retirement after twenty years of service. Detroit, Mich., requires twenty-five years. Los Angeles, Cal., requires from twenty-five to thirty-five years. In the eight cities with population from 500,000 to a million, St. Louis, Mo., Pittsburgh, Pa., and Buffalo, N. Y., permit retirement after twenty years of service. The other five cities require twenty-five years or more. In Baltimore, Md., the firemen are not eligible to retire until they reach sixty years of age. In the eleven cities, exclusive of Jersey City, N. J., with populations between 300,000 and 500,000, Minneapolis, Minn.; New Orleans, La.; Kansas City, Mo., and Portland, Ore., permit retirement after twenty years.

The majority of the 288 cities have no compulsory old age retirement provision. In those cities which have such a provision, the age ranges from fifty-five years in Sioux Falls, S. D., to seventy-two years in Cedar Rapids, Iowa.

Financing of Pensions

There is a wide variation throughout the country in the methods of financing pensions for firemen. Over 70 per cent, or 188, of the cities require a contribution based upon the amount of the annual salary. Such contributions range from a low of ½ of 1 per cent in Cleveland, Ohio, to as high as 14¾ per cent in Pasadena, Cal. In 61 cities, the firemen make no contribution whatever. Sixteen of these cities are in Ohio and 12 are in Massachusetts. Among the twenty-four largest cities in the United States, only New York and Detroit, Mich., require no contribution from the firemen. A number of cities require a fixed annual contribution which ranges from $6 in the case of Louisville, Ky., to from $80 to $120 in Stockton, Cal.

Firemen in cities in New York State who are members of the New York State Employees' Retirement System, contribute from 3.72 per cent to 6.16 per cent of their annual salary. In cities in the State of New Jersey, firemen uniformly contribute four per cent of their annual salary. The State of Oregon enacted a law, effective in 1937, requiring a minimum contribution by employees of four per cent of salary. Of twenty cities in Ohio, only four require a contribution by the firemen.

Under an act passed by the Legislature of the State of Massachusetts in 1934, all non-contributory retirement systems in Massachusetts, ex-

cept for judges of the courts, ceased to be open to new employees after December 31, 1937. Present employees may continue to enjoy the protection of a present non-contributory system. Effective January 1, 1938, therefore, the information shown in tables to be published in later issues, with respect to those cities in Massachusetts where the firemen make no contribution toward the cost of their pensions, does not apply to new employees in those cities.

Cities and Men Contribute to Cost

While firemen in New York and Detroit contribute nothing toward the cost of their pensions, firemen in Chicago, Ill., contribute four and three-quarters per cent of their salary, in Philadelphia more than three and one-quarter per cent and in Los Angeles four per cent of their salary. Contributions by firemen in the cities with populations between 500,000 and a million range from one-half of one per cent in Cleveland, Ohio, to four and five-eighths per cent in Milwaukee, Wis. The only other city in this group where the contribution is less than three per cent is St. Louis, Mo., which requires a two per cent contribution. Washington, D. C., requires a contribution of three and one-half per cent and in Newark, N. J.; Seattle, Wash., and Portland, Ore., firemen contribute four per cent of their salaries.

About 40 per cent, 109, of the cities throughout the country make a deficiency appropriation to finance the cost of firemen's pensions over and above the contributions by the firemen. Seven cities, including Buffalo, N. Y.; Washington, D. C., and Cincinnati, Ohio, credit to the pension fund certain revenues from sources within and without the Fire Department and make a deficiency appropriation in addition. In New York City the pension fund receives annually about a million and a half dollars in miscellaneous revenues and the deficiency is made up by the city and financed through the issuance of special revenue bonds redeemable the following year.

Twelve cities make no contribution whatever toward the cost of firemen's pensions. Among these cities are Kansas City, Mo.; Miami, Fla.; Peoria, Ill., and Charlotte, N. C. St. Louis, Mo., makes an appropriation only for disability pensions. Forty-eight cities, including Boston, Mass.; Pittsburgh, Pa., and Providence, R. I., contribute on an equal basis with the firemen. In Knoxville, Tenn., the firemen contribute three per cent of their salary and the City two per cent. In Covington, Ky., the firemen contribute two per cent and the city one per cent.

The percentage of salary contributed by the city ranges as high as 12⅛ per cent in Milwaukee, Wis., and 12.78 per cent in Sacramento, Cal. A few cities make a fixed appropriation, as is the case in Wilmington, Del., with a $5,000 appropriation by the city, in Wheeling, W. Va., with a $2,500 appropriation and in Pueblo, Col., with a $3,000 appropriation. Cities in the state of New Jersey contribute four per cent of salary, as do the firemen and in a few instances make a deficiency appropriation as well. In Indiana, the contribution by the city is limited to the equivalent of two cents on every one hundred dollars of assessed valuation, although Indianapolis reports a contribution of two mills of each taxable dollar. In Ohio, the State law fixes the contribution by the city at not more than the equivalent of a three-tenth mill tax levy.

Cost Met by Tax on Fire Insurance

In twenty-four of the cities, the public's share of the cost is met by a tax on fire insurance premiums. This is true in Philadelphia, Pa., and Denver, Col. Some of the cities report a deficiency appropriation in addition to the revenues from this source. Other cities, including New Orleans, La., and St. Joseph, Mo., finance their share of the cost through the collection of license fees and other special taxes. In High Point, N. C., where the firemen make no contribution toward the cost of their pensions, the entire income for retirement pay has been received from a one dollar tax on each warrant issued for violation of the criminal laws of the city and state.

Marion, Ohio, Abolishes Pensions

Marion, Ohio, abolished pensions by action of its City Council in 1936, on the ground that pensions are a gratuity. The Common Pleas Court upheld the action of the Council and an appeal has been taken to the Court of Appeals. Louisville, Ky., among a number of other cities, is endeavoring to place its pension system on a sound contributory basis. In 1936 contributions for pensions in Louisville amounted to over $76,000, while the contribution by the policemen and firemen amounted to slightly more than $2,500.

Basis of Retirement Allowance

In 225 cities, 78 per cent of the total, the annual retirement allowance payable to firemen after service retirement, is 50 per cent or less of their final salary. Some cities base the retirement allowance upon the average salary of the last five years of service, as in the case of Philadelphia, Pa.; Altoona, Pa., allows $2.25 per month for each year of service, Stockton, Cal., allows from three to four dollars per month for each year of service. Cities in the State of New York, whose firemen are members of the New York State Employees' Retirement System, pay a retirement allowance of 1/70th of the average annual salary of the last five years of service, multiplied by the number of years of service. Some cities pay a fixed sum, regardless of salary. This is true of St. Louis, Mo., which pays $600 a year; Pittsburgh, Pa., which pays $960 a year, and a number of other cities. St. Petersburg, Fla., makes the most liberal provision, with a retirement allowance of 75 per cent of the salary.

In Omaha, Neb., under State Law, firemen receive a pension of fifty per cent of a $180 monthly salary, which was the basic salary at the time the law took effect. The present basic salary is only $130 per month. The law with respect to firemen differs from that of policemen, who receive a pension of fifty per cent of their actual salary.

Seventy per cent of the cities, a total of 200, provide an annual retirement allowance of not more than 50 per cent for retirement on account of disability incurred in line of duty. Los Angeles, Cal., grants disability retirement allowances ranging from 10 per cent to 90 per cent of the salary. Miami, Fla., pays 100 per cent of the salary. Lorain, Ohio, pays 100 per cent annually, up to the scheduled time of retirement. Cities in New York State which are members of the State Retirement System pay an annual retirement allowance equal to 75% of the average salary of the last five years of service.

Only four cities, New York City, Chicago, Ill.; Sacramento, Cal., and St. Petersburg, Fla., pay a life-time disability retirement allowance of 75 per cent of the final salary. Of the 24 largest cities in the United States, with populations in excess of 300,000, exclusive of Jersey City, N. J., 16 cities pay not more than 50% of final salary for disability retairement.

* * *

Correction of an Error

To the Editor:

We have just read an article in the April issue of FIRE ENGINEERING, which deals with employment conditions of

police and firemen, and the data seems to have been received from the Citizens Budget Committee of New York City. It is a very good article and has much valuable information, but we noticed where it mentions that the firemen of Beaumont are on duty sixteen hours a day, seven days a week. This information is not correct. These men work the double shift, ten hours on, fourteen off each day, working a full 24 hours on Monday every other week or at the most 84 hours a week.

The information either given to the Citizens Budget Committee was wrong or they made the mistake in their own office. While it does not make any particular difference to us, it still gives a bad impression concerning the working conditions here with other cities.

I am merely calling this to your attention, so that this erroneous information may not be published again. I would appreciate your calling it to the attention of the Citizens Budget Committee.

Yours Truly
S. D. O'Conor,
Chief, Beaumont, Tex.

* * *

To the Editor:

Referring to the article appearing in the April issue of Fire Engineering entitled "Employment Conditions of Policemen and Firemen", I wish to correct a statement appearing in the third paragraph which says:

"With this sole exception, the highest entrance salary paid to firemen in any city in the United States is $2,300, in Bloomfield and Hackensack, N. J., in both of which cities the salaries of firemen range from $2,300 to $2,500."

While I do not propose to criticize the above statement as it refers to salaries of Bloomfield firemen, this is quite untrue as it relates to salaries in Hackensack.

Entrance salaries paid to firemen in this latter city as adopted by referendum in 1926 are as follows:

Firemen: 1st Grade, $2,000; 2nd Grade, $2,100; 3rd Grade, $2,300.
Drivers: 1st Grade, $2,100; 2nd Grade, $2,200; 3rd Grade, $2,500.

I do not profess to know from where the Citizens' Budget Committee of New York City got its information, but confirmation of the above figures may be obtained by writing to Miss Ethel M. Hoyt, City Clerk, City Hall, Hackensack, N. J.

Very truly yours,
O. A. Ripperger,
112 Union Street,
Hackensack, N. J.

BLOWER HELPS CUT SMOKE LOSSES AND AIDS DEPARTMENT AT FIRES

Portable Blower Unit Proves Valuable at Smoky Fires—Recommended for Use by Smaller Departments—Operates Unattended

By E. F. Coop
Chief of Fire Department, Pasadena, Cal.

THERE is no question in my mind regarding the value of smoke removal for aiding in the extinguishment of fires and reducing smoke loss.

We have had gratifying results with a Homelite blower which we purchased in 1934. It has enabled firemen to enter places, and has minimized the smoke damage.

Floor Cleared of Smoke in 20 Minutes

A fire occurred some time ago on the second floor of a department store which had a floor area of about 50 by 100 feet. Fire broke out in about the front part which was used for offices. Fire was of considerable intensity, but due to its accessibility and the proper direction of fire streams, was quickly controlled. However, the entire floor was heavily charged with smoke. The blower was placed in use after the fire was under control, and in about twenty minutes, the floor was entirely cleared of smoke by the use of this blower. This helped to reduce the smoke damage to the floor contents.

At another time, fire broke out in an apartment of an apartment house and practically destroyed an electric refrigerator. It was impossible to enter the kitchen of the apartment involved, due to the escape of the refrigerant. The Homelite blower was put into service and in a short time, it was possible for one to enter the apartment with safety.

Basement Quickly Cleared

At a third fire in a basement, heavily charged with smoke, the blower cleared out the smoke in a reasonable length of time, after the fire had been controlled by hose lines.

I believe that this type of equipment could be adapted for use by smaller departments, but that larger departments need to develop an individual unit with greater capacity.

I have been experimenting with a large exhaust fan, electrically operated from our Light and Rescue Car, but without any definite results.

Self Contained Gasoline Unit

The Homelite blower is a self-contained gasoline driven unit. Our method of operation is for one man using a self-contained breathing apparatus, to carry this machine inside the area that is charged with smoke. The engine is started and a collapsible canvas exhaust pipe is put out through a window or other convenient access to the outside air. As soon as the blower is started, it is left to perform its work without further attention.

The time required to clear a building of smoke depends, of course, on the area of the space and the capacity of the machine.

Chief Taggart Honored

A banquet at Fire Department headquarters was held at Asbury Park, N. J., to mark the tenth anniversary of Chief William S. Taggart as head of the department.

Chief Daniel B. Tierney, President of the I.A.F.C., and Leon A. Watson, State Schedule Rating Bureau, Expert, paid tribute to his leadership.

Other speakers were Chief Charles A. McGinley, East Orange; James Keegan, Chief, Newark Salvage Corps, and Harry Harsin, Director of Public Safety, Asbury Park.

McKinney, Chief of Rome, Ga.

Assistant Chief W. T. McKinney was appointed Chief of the Rome, Ga., Fire Department on May 12 to fill the vacancy caused by the death of the late Chief Horace L. Taylor: Capt. W. H. Cooper was appointed Assistant Chief.

Chief Taylor, forty-nine years old, died from a blood infection caused by a carbuncle. He had been connected with the department since 1910. He was a director of the Georgia Fire College, and held membership in the I. A. F. C. and the Southeastern Fire Chiefs' Association.

The Late Chief H. L. Taylor

Chief Donnelly, Lincoln, in Hospital

Chief Francis W. Donnelly, Lincoln, Neb., is in a local hospital to undergo a knee operation.

At a recent fire in the Lincoln High School, he fell twelve feet and fractured his right foot and one of the bones in his left knee.

The bones of the ankle have been set, but it is necessary to operate on the knee to reduce the fracture.

PROMOTIONAL STUDY COURSE

Herein is presented a series of definitions, questions and answers designed to aid fire department officers in preparing themselves for promotional examinations. In this department, which appears monthly, will be included questions typical of examinations held throughout the country.

Definitions

Gas Tar: A thick, black liquid which accumulates at the bottom of the tar well in gas works.

Gunny: A coarse, heavy fibre with a satiny lustre. A specie of jute or hemp.

Gutta-Percha: Gutta-percha is rubber.

Gypsum: Sulphate of lime found in rock formation. It is a slow conductor of heat, as it contains in its mass a multitude of infinitely fine air cells.

Hangars: One-story steel frame structures (usually high) used for housing airplanes.

Questions

(To Be Answered in Next Issue)

1. Following is a description of a building and the location of a fire: The building is of non-fireproof construction, five stories in height, 40 x 90 feet, fronting on a 60-foot street, and extending back to a narrow alley in the rear. There are two stairways leading to the basement, one in the rear, and one in the front part of the building. There is a passenger elevator which opens into a hallway about twenty feet from the front, the shaft of which extends from the basement to the roof. The building is occupied as a salesroom for a retail furniture business, the top floor being used as a workroom for the repair, upholstery, etc., of furniture.

   A fire breaks out and is burning rapidly in the basement. Shortly after you have started operations several of your men are overcome by illuminating gas. You are in command for fifteen minutes, with three engine companies and two truck companies, which responded on a bell alarm.

   Explain in detail how you would handle the situation.
2. Explain in detail how you would proceed to inspect a large candy factory, mentioning the principal fire hazards to be found in such places.

False and True Questions

(Is Each Question False or True? Answers in Next Issue.)

3. T F—Dry poles make good supports from which to reach out and cut live electric wires.
4. T F—Locations of cellar stairways and other outside openings are very important things to notice on inspections.
5. T F—The stream from soda and acid type extinguisher is approximately forty times as effective as is a plain water stream when used on fire involving free burning materials.
6. T F—Proper lubrication is the most important factor in the life of motor fire apparatus.
7. T F—You would be justified in ordering your men into extreme danger in an endeavor to save valuable property.
8. T F—Fire axe and pike pole are good tools for the purpose of severing supply of electricity from the building involved with fire.
9. T F—Fire foam floats as well on surfaces of light liquids as on heavy ones.
10. T F—Water is a conductor of electricity and should be used with caution when necessary to operate around high voltage electric wires.
11. T F—Familiarity with buildings enables firemen to operate with a lesser degree of efficiency, in case of fire.
12. T F—One of the principal advantages of standpipes is the fact that they make for quicker work at fires.
13. T F—A hose stream should be directed into a tank of burning gasoline or kerosene.
14. T F—Fires in the holds of ships often are extinguished with carbon-dioxide, under conditions which would make them difficult to handle with other extinguishing agents.
15. T F—The principal use of fire escapes in fighting fires is to aid firemen in stretching hose lines and reaching the seat of the fire on upper floors.
16. T F—The question of whether or not doors were found open or locked is frequently of importance in arson trials.
17. T F—Water curtain from perforated pipes or open type sprinklers will keep windows intact even though exposed to very severe heat.
18. T F—Attacks of pyromania have been known to occur to persons of widely different ages.
19. T F—Reliable sources of water supply are the main requisites of good sprinkler systems.
20. T F—Fire not fully extinguished by carbon tetrachloride needs only a fresh supply of oxygen to cause it to again burn with vigor.

Completion Statements

21. Engines are not usually placed at hydrants alongside of fire building because .....
22. If soft coal is piled alongside wooden walls, there is danger of fire due to .....
23. Motors on wooden floors should be placed in metal pans so that.....
24. As a general rule, when operating on fires in ammonia plants it is best to use ..... quantities of water.

Answers to Questions in Previous Issue

1. (a) Smoke and heat rise, and if the heat is intense enough, it may start fire on the upper floors of building. Where all openings are closed in a building, heat rising in this manner may not only start new fires, but may cause the fire to "mushroom" on the top floor. The principal object in ventilating in this case is to relieve the building of the smoke and heat, and thus check the spread of the fire. At the same time, releasing the smoke and heat will make it possible for men to operate at close range.

The first step, therefore, to take in ventilating a building to relieve it of the smoke and heat is to open up the roof. The usual procedure is to assign this work to the second due truck company, the first truck company assisting the engine or hose companies in opening up and providing means for getting lines in operation on the fire. The truck company goes to the roof at once with proper equipment, which includes axe, 6-foot hook, roof rope, and sometimes claw tool and tin cutter.

Pent house over elevator well is opened, as well as skylights over stairways and scuttles covering other vertical ducts through the building. Small openings in the roof do not accomplish the desired result, and for that reason all means available should be brought into play to provide a sufficient area for properly ventilating the building. In certain old establishments, where scuttles or other removable covers are not of sufficient area, the roof itself is opened by removing tin or other covering, and then cutting out a section of the roof boards. In any case it usually requires a large area to properly ventilate a building which is fully charged with heat and smoke.

In case of an emergency, such as where a life is in danger, the first truck company is divided, part operating with the engine company in effecting entrance to the building, and rescuing the imprisoned person, while one or two members of the company are sent to the roof to provide ventilation.

In flat roof dwellings or apartment houses, particularly of the old style, dumbwaiter shafts rise through the building and terminate in the cock loft. A scuttle is usually found immediately above the shaft in the roof. If such scuttle is not promptly removed, there is great danger of the heat entering the cock loft and causing fire to spread over the entire structure. Here fast work is necessary.

After the roof has been properly opened in a buiding which is being ventilated for heat and smoke, then the windows on the various floors are to be opened in turn, starting with the top floor and working downward. As long as the building is not involved with fire, it is not a difficult matter for the men to work down fire escapes from floor to floor opening windows as they go. In opening windows for ventilating an entire floor the windows may only be pulled down from the top, whereas in ventilating a single room the usual practice is to open the windows top and bottom.

(b) In ventilating a building for gases and fumes which are heavier than air, ventilation is best accomplished by opening the lower part of the building first. Such heavy gases, unless drawn upward by a strong draft caused by a

hot fire, usually sink to the lower part of the building and bank up very much the same as water would were it dumped in the structure. By opening up the lower doors, windows, etc., the gas flows out in a manner similar to water. Roof ventilation is not as effective in such a case, as it is where the structure is being ventilated for heat and smoke.

Where fire is burning vigorously, however, and there is a strong draft upward, ventilating by opening the roof first will release the pent up heat and smoke and in the rush upward thereof, heavy gases are carried along. Hence in ventilating for a hot fire no special consideration need be given for heavier than air gases.

2. The principal danger in connection with a fire involving nitric acid is the presence of the poisonous nitric acid fumes. These fumes frequently prove fatal. Although the men may be able to endure the fumes temporarily, particularly when mixed with smoke, the hazard to life remains undiminished. Before attempting to enter a basement wherein nitric acid is present in quantities and where fire is burning, or is soon apt to be burning, thorough ventilation must be provided. Open up front and rear entrances or windows, if such are available, and also open the interior door leading to basement. Nitric acid coming in contact with excelsior will likely star fire, and the fire will, in turn, cause rapid vaporization of the nitric acid.

After ventilation has been accomplished, operate streams from a safe distance. If good ventilation cannot be provided, use cellar pipe through floor to control fire rather than expose men to the fumes by sending them into the basement. On the other hand, if proper gas helmets are at hand, men may employ these to safely enter the basement. In any case great care must be taken to prevent exposure of the men to the fumes. Care must also be taken to avoid acid burns.

In using water on the nitric acid, large quantities will dilute the acid and minimize its danger. The streams, if carefully handled, so as not to upset or break additional carboys of the acid, will cool the remaining carboys off so that there will be little danger of generation of acid fumes.

3. Dynamite is most dangerous when in a warm condition. In cold climates it solidifies, at a comparatively mild temperature. When so frozen it is less sensitive to shock and is less apt to be completely exploded when set off in a blast. For this reason frozen dynamite must be thawed out before being used. The process of thawing is extremely hazardous and many fatalities have resulted from explosion of dynamite undergoing such process.

In handling dynamite, care should be taken not to subject it to shock, such as when dropped, nor to cause it to be exposed to friction, for either may possibly detonate the dynamite.

4. False; 5. False; 6. False; 7. True; 8. False; 9. True; 10. True; 11. False; 12. True; 13. True; 14. False; 15. True; 16. False; 17. True; 18. True; 19. True; 20. False; 21. True; 22. True; 23. False; 24. True.

25. .....return extra apparatus to quarters.

26. .....notify the commanding officer and remain on duty until officially relieved.

27. .....send in a special official report.

28. .....refer the matter to his superior officer.

4-Alarm Fire Gives 13-Hour Battle

Raging flames, fanned by an intensely cold wind, swept through the Schulte-United Store building, three and four stories of brick in the heart of the East Liberty business district, Pittsburgh, Pa., at an early hour recently. For a time the fire threatened to sweep through the entire block of store and office buildings bounded by Penn Avenue,, Kirkwood Street, and North Highland and Sheridan Avenues.

Ruins of Pittsburgh Store, After 4-Alarm Fire

Before it was brought under control four alarms were sent, which brought 16 fire companies, with a manual force of 90 firemen and 17 pieces of fire apparatus.

Fire started from an unknown cause in the basement of the Schulte building. It was not discovered until after Engine Company No. 8 and Truck 8 had been sent on a "still alarm" to the Murphy Five and Ten Cent Store at 1:16 a. m.

The watchman in the Five and Ten Cent Store, located next door to the Schulte store, telephoned the call after he discovered smoke in the basement of the building while making his rounds.

The first alarm was quickly followed by the second at 1.33 a. m., the third at 1:49 a. m. and the fourth at 1:51.

A special call, following the four alarms, at 2:53 a.m., brought Squad Company No. 1 to the scene from the downtown business district.

As the firemen turned their streams into the burning building, Penn Avenue, Kirkwood Street and other thoroughfares in the vicinity were soon flooded with water that froze almost at once in the sub zero temperature.

After a hard three-hour battle, under the direction of Chief Nicholas A. Phelan, the fire was under control. Flames had been confined almost entirely to the basement and the first floor of the Schulte building.

Fire was fought from the front and rear of the burning structure with fifteen powerful streams, which included a water tower and a turret stream from No. 8 Engine Company's deluge combination water tower and turret wagon.

Nine firemen, including Battalion Chief David A. Wilson, were sent to the Mercy Hospital. One suffered from a broken ankle by falling from an ice coated ladder, and the others received eye burns from the stifling smoke and exposure.

The burned store building, of brick and stone construction, fronted 50 feet on Penn Avenue and extended through the block 125 feet to Kirkwood Street. It was practically two buildings in one; the section at 6015 Penn Avenue is four stories in height, while the section at 6017 is three stories, a brick party wall, with openings on all floors, runs through the building from Penn Avenue to Kirkwood Street.

WILLIAM J. PATTERSON.

Ohio Fire School and Exposition

An attendance of 35,000 is expected at the Ohio Regional Fire School and Third Ohio Fire Exposition which will be held at Youngstown, Ohio, July 6, 7.

Manufacturers are invited to display their products in the Exposition Hall. No charge will be made for exhibit space and in addition chairs and tables will be provided. Floor space will be reserved in the order that the requests are received.

The directors of the exposition and school are Frank Vernotzy, First Assistant Chief, Akron; C. T. Donnelly, Assistant Chief, Lakewood; Captain L. P. Seiler, Cuyahoga Falls, Ohio.

Mayor Lionel Evans of Youngstown has sent letters to all the mayors of Ohio, Pennsylvania and West Virginia, inviting them to be his guests at the exposition.

Aid Rushed to Town Farm

Forty-two aged inmates of the Town Farm and Infirmary in Milford, Mass., were led out in safety recently, when the large frame structure was swept by fire with a loss estimated at $75,000. Chief John F. Adams, Milford Fire Department, summoned aid from Hopedale and Chief Samuel E. Kellogg responded with Combination Company No. 2, a 750-gallon Ahrens-Fox centrifugal motor pumper.

A new water reservoir recently built under WPA auspices was nearly drained by the combined pumping of three Milford engines. The Hopedale engine took suction from an old water hole to the west of the farm buildings. The recreation hall, one end of the main building, and the large barn were saved by the firemen.

Fuel oil flowing from a 500-gallon underground tank burned stubbornly in the kitchen as it was impossible to reach a shutoff valve near the stove. The firemen used five lines of 2½-inch cotton rubber lined hose.

The Milford apparatus at the scene consisted of a 750-gallon American-LaFrance motor pumper, a 500-gallon American-LaFrance motor pumper, a 400-gallon Maxim motor pumper, and a Maxim city service ladder truck.

There were 27 men and 15 women inmates in the building when the blaze broke out in an unused attic apparently from spontaneous ignition. Supt. Maurice L. Brittle and his wife rushed through the building and assisted the infirm inmates from their room. The blaze spread rapidly and had burst through the roof by the time the first apparatus reached the scene, several miles out of town. The main building was a 3½-story frame structure containing a large dormity, 30 rooms, dining room, and kitchen. The property was insured for $90,000. There were no hydrants and it was necessary to lay long lines of hose from the two water holes. Some furniture was removed from the lower floor. Rainy weather helped prevent the barn and outbuildings from taking fire when these structures were showered with burning embers.

HARRY BELKNAP.

Daub Married 50 Years

Chief and Mrs. Horatio H. Daub, Pembroke, Mass., were tendered a surprise party recently by a group of their friends. The occasion was the 50th wedding anniversary of the couple.

HARRY BELKNAP.

Carbon Bisulphide Fire

A dangerous chemical fire menaced Baltimore's Municipal Office Building for a time on March 11. A five-gallon carboy of carbon bisulphide which was being handled on the 12th floor, broke and the escaping liquid burst into flame.

Persons were warned from the building and firemen were called. The first companies held the fire in check with carbon tetrachloride, while a call was sent for the department rescue squad. The squad arrived with their carbon dioxide extinguishers and put out the blaze.

OTIS SMITH.

Massachusetts Chiefs Elect Officers

Chief William C. Mahoney, Peabody, was re-elected President of the Fire Chiefs' Club of Massachusetts at the annual meeting, which was held in the Parker House in Boston on May 18. Chief Frank F. Dickinson, Brockton, was elected First Vice-President; Chief Robert Tappen, Gardner, Second Vice-President; Chief Michael Shea, Fitchburg, Sergeant-at-Arms; and Chief William H. Hill, Belmont, Secretary-Treasurer.

The guest and speaker of the day was Eugene M. McSweeney, Commissioner of Public Safety of the Commonwealth of Massachusetts. He was introduced by State Fire Marshal Stephen C. Garrity. A luncheon preceeded the meeting.

The report of Secretary Hill showed that the club has a membership of 256 including 171 active, 46 associate, 22 honorary, and 17 life members.

Chief Ray D. Wells, Falmouth, Ex-Chief Thomas Mahoney, Westfield; Chief Herbert C. Root, Springfield; Chief Thomas H. Slaman, Welesley, and Ex-Chief Daniel F. Sennott, Boston, were chosen as the Board of Directors.

Chief Daniel B. Tierney, Arlington, Mass., President of the International Association of Fire Chiefs, and Chief John W. O'Hearn, Watertown, Mass., Secretary of the New England Association of Fire Chiefs, spoke briefly regarding plans for the coming conventions of their respective organizations.

Commissioner McSweeney thanked the Chiefs for their co-operation with his department and pointed out the fact that out of 172 arrests for arson, 167 convictions had been obtained. He said that the laboratory and Bureau of Photography of his department as well as the mobile 2-way radio unit, were at the disposal of the Chiefs.

Ex-Chief Peter E. Walsh, Boston, and City Electrician William Greenlaw, Beverly, spoke briefly. The next meeting of the club will be held in Boston on September 14.

HARRY BELKNAP.

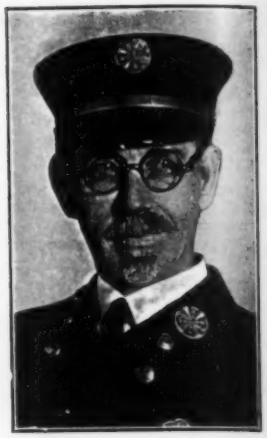
Emergency Squad in Service at Reading, Pa.

Formal housing of a new emergency squad truck was held at Reading, Pa., in conjunction with the ninetieth anniversary celebration of Friendship Company No. 4. It is the first piece of equipment of this type and will carry eight men, all volunteers. The equipment includes a 100-gallon pump, with 100-gallon booster tank, twelve salvage covers, gas masks, life gun, portable Homelite generator and floodlights, chain block, pipe wrenches, sledge hammers, rubber gloves, rubber boots and coats, respirators, bar cutter, safety belts, shovels, brooms, bars, first aid kits, three hundred feet of one-inch hose, goggles, etc. It also has a loud speaking system operated from the generator.

CHIEF J. W. RANDLETTE
President
Richmond, Me.

CHIEF THOMAS F. BURNS
First Vice-President
Bridgeport, Conn.

CHIEF S. J. POPE
Second Vice-President
Boston, Mass.



CHIEF JOHN W. O'HEARN
Secretary-Treasurer
Watertown, Mass.

CHIEF A. H. KOLTONSKI
Chairman, Exhibit Com., and State Vice-President
Rutland, Vt.

CHIEF THOMAS KERRY
Member, Exhibit Com.
St. Albans, Vt.

CHIEF DANIEL B. TIERNEY
Member, Exhibit Com., and Ex-President
Arlington, Mass.

CHIEF CARL D. STOCKWELL
Past President
Burlington, Vt.

CHIEF O. T. SANBORN
State Vice-President and Ex-President
Portland, Me.

CHIEF WM. C. MAHONEY
State Vice-President
Peabody, Mass.

CHIEF SELDEN R. ALLEN
Ex-President
Brookline, Mass.

CHIEF M. W. LAWTON
State Vice-President
Middletown, Conn.

OFFICERS AND EX-PRESIDENTS, NEW ENGLAND ASSOCIATION OF FIRE CHIEFS

PLANS OF NEW ENGLAND CHIEFS FOR CONVENTION IN BURLINGTON, VT.

Board of Directors Meets and Makes Arrangements For Gathering, Which Is to Be Held at Hotel Vermont, with Exhibits at Municipal Auditorium

AN interesting program for the sixteenth annual convention of the New England Association of Fire Chiefs was planned at a meeting of the officers and Board of Directors, which was held in the Parker House, Boston, Mass., on May 5.

The dates of the convention are June 21, 22, and 23, and the location is Burlington, Vt., with headquarters in the Hotel Vermont and exhibits in the Municipal Auditorium.

Those Present

The meeting was attended by Chief Joseph W. Randlette, Richmond, Me., President; Chief Thomas F. Burns, Bridgeport, Conn.; First Vice-President; Chief Samuel J. Pope, Boston, Mass., Second Vice-President; Chief John W. O'Hearn, Watertown, Mass., Secretary-Treasurer; Chief Charles H. French, Manchester, N. H.; Chief William T. Happny, Concord, N. H.; Chief Oliver T. Sanborn, Portland, Me.; Chief Alfred H. Koltonski, Rutland, Vt.; Chief Carl D. Stockwell, Burlington, Vt.; Philip H. Plankey, Burlington, Chairman of the Entertainment Committee; Chief William C. Mahoney, Peabody, Mass., President of the Fire Chiefs' Club of Massachusetts; Chief Daniel B. Tierney, Arlington Mass., President of the International Association of Fire Chiefs; and Harry Belknap, Boston, Press Representative.

Secretary O'Hearn read the minutes of the previous meeting and announced the following deaths of members: Ex-Chief C. H. Knowles, Hamilton, Mass.; District Chief Jams M. Gallagher, Fall River, Mass.; John J. Scully, Boston, Mass.; and Chief Louis A. Ware, Hanover, N. H.

Some Features of Convention

Features of the coming convention will be the start of a campaign for uniform regulations and stricter enforcement of rules governing the sale of fireworks; developments in establishing new training schools for firemen; report of the recent fatal garage explosion in Bath, Me.; and an address on improved treatment for burns.

Chief Stockwell, Burlington, introduced Phillip H. Plankey, Chairman of the Entertainment Committee. Plans were outlined for a boat trip on Lake Champlain and other entertainment features. Upon motion Chief William C. Mahoney, Peabody, the Rev. Fr. Michael F. Collins, Marblehead, Mass., was appointed a Chaplain of the association.

The Program

The program is as follows:

Monday, June 20

6:00—Registration at Hotel Vermont, Convention Headquarters. Exhibition opens in Auditorium.

Tuesday, June 21

9:00 A.M.—Concert by Week's Band.

10:00 A.M.—Assemble at Hotel Vermont for Parade of Chiefs and guests to Strong Theatre.

Opening of Convention by President Joseph W. Randlette, Richmond, Maine.

Invocation by Rt. Rev. Monsignor Patrick C. Brennan.

Address of Welcome by Governor George D. Aiken.

Address of Welcome by Mayor Louis F. Dow.

Response to Address of Welcome by Wm. Arthur Reilly, Fire Commissioner, Boston, Mass.

Memorial Exercises

Selection by Harry Gallup Quartette.

Roll Call of Deceased Members since last Convention.

Taps by Fort Ethan Allen Bugler.

Selection by Quartette.

Memorial Address: Reverend Michael F. Collins, Chaplain, New England Association, Marblehead, Mass.

Benediction: Rt. Rev. Monsignor Patrick C. Brennan.

Entertainment Program

Tuesday afternoon: Tea and Bridge Party at Champlain Club, Mallettes Bay.

Tuesday night: Floor Show and Dancing at Sherwood Royale Grill.

Wednesday afternoon: Entertainment at Ethan Allen Club, Bowling, Billiards or Bridge.

Wednesday night: Boat Ride, Dancing on Board.
Dancing on Roof Garden of Hotel Vermont and Hotel Van Ness each Evening.

Admission by Convention Badge to all Theatres in Burlington.

Forest Fire Wardens' Session

The Forest Fire Wardens' session will be conducted jointly by Perry H. Merrill, State Forester, Vermont, and Otto Koenig, of the United States Department of Agriculture, Supervisor, White Mountain National Forest.

The Exhibit Committee is composed of Chief A. H. Koltonski, Rutland, Vt., Chairman; Chief Thomas Keery, St. Albans, Vt.; and Chief Daniel B. Tierney, Arlington, Mass. Chief Stockwell announced that exhibitors' material would be transported free from the railroad depot to the hall.

HARRY BELKNAP

Maritime Chiefs to Meet

Plans have been completed for the 24th annual convention of the Maritime Fire Chiefs' Association convention which will be held in Sydney, N. S., July 12 and 13.

There will be a demonstration of safety appliances, a talk on "Fire Fighting Underground," by Alexander Hay, Mining Engineer, Dominion Coal Company; paper on "Fire Department and Relation to the Municipality," by Councilman Pettipas, Dartmouth, N. S.; question box on many subjects, and an exhibit of fire fighting appliances and equipment.

A banquet for the visitors and their ladies will be held the first night at the Isle Royal Hotel. There will also be a dance, and an automobile trip through the Cape Breton section. A special committee has been appointed to look after the ladies.

One of the Rewards of Winning a Fire Prevention Essay Contest

Los Angeles tied with Memphis for first place in an essay contest directed by the Los Angeles Junior Chamber of Commerce for its Fire Prevention Week program. Beverly McDermott, sixteen years old and a student at the Catholic Girls High School, Los Angeles, won first prize. She was taken to the 20th Century Fox studio and saw part of the production of "Old Chicago," and was also the guest of the three Ritz Brothers, who were filming "Kentucky Moonshine." She spent an exciting day on a studio tour. Here she is photographed with the Ritz Brothers.

EASTERN ASSOCIATION OF FIRE CHIEFS TO MEET AT BALTIMORE JUNE 16 TO 18

Plans Made for a Large Gathering in Southern City—Many Valuable Papers to Be Presented—Interesting Entertainment Features Planned

Chief Ross B. Davis
President, Eastern Fire Chiefs,
Philadelphia, Pa.

THE annual convention of the Eastern Association of Fire Chiefs will be held at Baltimore, Md., June 16 to 18. During the gathering there will be a boat trip to Annapolis with dancing and refreshments on board, a parade, a crab feast, a dinner at the Lord Baltimore Hotel, and a clam bake and chowder party.

The following papers will be presented at the meetings:

"Fighting Fire in Frame Buildings Along the Seashore," by Chief David Stewart, Ventnor, N. J.

"Operation of Fire Department at Major Fires," by Chief Howard Travers, Baltimore, Md.

"New Hazards in Industry," by T. Alfred Fleming, Director of Conservation, National Board of Fire Underwriters.

"Ordinary Happenings at Ordinary Fires," by Deputy Chief John J. T. Waldron, New York City.

"Organization and Cooperation of Arson Investigation by Fire Departments," by Chief Edward Warr, Chief of Salvage Corps, Baltimore, Md.

There will be round table discussions on a number of current problems.

Phelan Designs Fireboat

For the protection of inundated areas during floods and for fighting fires in river craft, Chief Nicholas Phelan of Pittsburgh, Pa., has designed a fireboat that is propelled by water jets.

The craft will be powered by two eight-cylinder engines. Water will be drawn through an inlet in the bottom and ejected at the stern with a force great enough to force the boat ahead at a speed of fifteen miles an hour. This eliminates the hazard of fouling a propeller in flood debris.

It is planned to house the boat on a special trailer, so that, when it may be needed, the boat will be towed to the water and launched.

The pumps will be capable of pumping 1,700 galons per minute, from four outlets. The two centrifugal pumps may be operated, either in parallel or series. The boat will be thirty feet long, eight feet wide and will draw less than two feet of water.

Fire Preventionists Meet

Warren Y. Kimball, National Fire Protection Association; Norman Sherwood, Rockwood Sprinkler Company, and L. A. Gray, Simplex Wire and Cable Company, were the speakers at the meeting of the Massachusetts Fire Prevention Association, which was held in the Central Fire Station, East Weymouth, recently. Motion pictures were shown of the action of automatic sprinklers and the dual guard system of fire protection. Luncheon was at "The Brick Kitchen."

The afternoon session was devoted to a demonstration of hazards of faulty insulation. Deputy Chief Fred Webb, Weymouth Fire Department, showed members of the association the work done by Weymouth firemen in stopping a bad fire in the edifice of the First Unitarian Church the day before the meeting. Captain Joseph McCarthy presided at the meeting, assisted by Secretary Albert C. Maxwell.

HARRY BELKNAP.

Grain Blast Takes Five Lives

Five men were killed and seventeen others were injured by a grain dust blast which wrecked the nine-story state owned public grain elevator at New Orleans, La. The bodies of the dead were horribly seared by the flames.

At the time of the blast, about two hundred persons were working in various parts of the elevator. Rescuers were handicapped in their work as the passenger lift was wrecked.

About 1,500,000 bushels of grain in the elevator were apparently undamaged.

The Department of Agriculture advised the New Orleans Port Commission authorities that the explosion in the Public Grain Elevator of New Orleans, was caused by the ignition of dust, produced in the handling of corn, by a flash from an induction type electric motor operating one of the dust collecting fans on the workhouse floor. The investigation was made by Dr. David J. Price and Hylton R. Brown, Chemical Engineering Research Division of the Bureau of Chemistry and Soils.

DEP. CHIEF J. J. T. WALDRON
First Vice-President
New York, N. Y.

CHIEF EDWARD H. WARR
Second Vice-President
Baltimore, Md.

EX-CHIEF R. L. SMITH
Treasurer
Pittsburgh, Pa.

CHIEF C. E. CLARK
Secretary
Wayne, Pa.

Officers, Eastern Fire Chiefs' Association

WHO'S WHO IN THE FIRE SERVICE

A Roster of Progressive Fire Officers and Others Who Are Members of the Seven Affiliated District Organizations of the International Association of Fire Chiefs

EASTERN DISTRICT ASSOCIATION

(Eastern Association of Fire Chiefs)

ASSOCIATE MEMBERS

DELAWARE

H. A. Golt, Asst. Chief, Dover.
Norris C. Phillips, Asst. Chief, Middletown.
Frank Sweeney, Captain, Wilmington.
Joseph Thomas, Captain, Wilmington.

DISTRICT OF COLUMBIA

H. A. Friede, Supt. Fire Alarm Telegraph, Washington.
Richard G. Kimbell, Washington.

MARYLAND

Robert Grollman, Asst. Fire Marshal, Annapolis.
J. L. Hopkins, Captain, Annapolis.
T. J. Mortimer, Lieutenant, Annapolis.
George H. Hilgeman, Batt. Chief, Baltimore.
Emanuel Kohner, Baltimore.
George D. Otter, Deputy Chief, Baltimore.
John J. Smith, Batt. Chief, Baltimore.
R. S. Tate, Batt. Chief, Baltimore.
Charles H. Thiess, Batt. Chief, Baltimore.
Edward A. Ward, Deputy Chief, Baltimore.
Edward M. Woodall, Lieutenant, Baltimore.
Mark Reid, Lieutenant, Chevy Chase.
Robert C. Densten, Asst. Chief, Dover, Delaware.
Irving W. Johnson, Captain, Takoma Park.

NEW JERSEY

Henry C. Schutte, Arbor-Dunellen.
Ernest N. Day, Captain, Dunellen.
Samuel Cohen, Asst. Chief, East Orange.
William Leitchenfield, Deputy Chief, Edgewater.
William C. Davis, Captain, Haddon Heights.
Charles E. Deeney, Asst. Chief, Haddon Heights.
William E. Johnson, Asst. Chief, Haddon Heights.
James Mears, Captain, Haddon Heights.
W. G. Simmons, Captain, Haddon Heights.
James Thompson, Jr., Deputy Chief, Irvington.
Roland Tasi, Asst. Chief, Lincoln.
Richard D. Quinn, Asst. Chief, Livingston.
John H. Graham, Asst. Chief, Montclair.
John B. Keenan, Fire Commissioner, Newark.
M. A. Laswell, Newark.
George F. Lynch, Deputy Chief, Newark.
Peter Tomnie, Passaic.
D. J. Adams, Asst. Chief, Port Norris.
William D. Baker, Captain, Ridgewood.

NEW YORK

Jules Steffen, Albany.
Antonio L. Petronelli, Captain, Astoria.
Frank E. Witt, Captain, Bellaire.
Henry J. Ball, Lieutenant, Bronx.
Jerimiah Collins, Captain, Bronx.
William Feder, Jr., Captain, Bronx.
Raymond L. George, Deputy Chief, Bronx.
Louis Goldschneider, Captain, Bronx.
P. G. Griffin, Bronx.
John J. Guerin, Bronx.
Terence T. McKee, Captain, Bronx.
Gottfried Vomocka, Lieutenant, Bronx.
Richard Burke, Captain, Brooklyn.
Henry Dodenhoff, Batt. Chief, Brooklyn.
Charles A. Field, Captain, Brooklyn.
Joseph F. Grady, Lieutenant, Brooklyn.
Richard B. Haynes, Captain, Brooklyn.
Ernest Kuhlmann, Brooklyn.
Henry Moller, Captain, Brooklyn.
A. G. V. Morris, Brooklyn.
James T. E. Morris, Captain, Brooklyn.
George O'Shea, Deputy Chief, Brooklyn.
Benjamin Vallen, Lieutenant, Brooklyn.
John J. T. Waldron, Deputy Chief, Brooklyn.
Peter F. Walsh, Captain, Brooklyn.
William Klein, Elmhurst.
John J. Gillon, Lieutenant, Flushing.
Ralph B. Ness, Captain, Flushing.
George F. C. Taylor, Flushing.
P. A. Bluemke, Asst. Chief, Franklin Square.
John Van de Water, Deputy Chief, Hastings-on-Hudson.
Joseph C. Miller, Lieutenant, Jackson Heights.
Pasquale Capillo, Lieutenant, Jamaica.
Reuben Timmins, Lieutenant, Jamaica.
Walter Daniel, Long Island City.
J. A. Herold, Batt. Chief, Long Island City.
Rudolph F. Musil, Long Island City.
Dr. Harry M. Archer, Honorary Deputy Chief, New York.
Louis Baer, Jr., New York.
Stanley Barnaby, New York.
J. M. Berdan, New York.
Rudolph Berls, New York.
George W. Booth, New York.
G. E. Braddock, New York.
Harold J. Burke, Deputy Chief, New York.
H. G. Cavanaugh, New York.
William J. Daly, New York.
J. J. Delaney, New York.
John T. Dwyer, New York.
William A. Espy, Asst. Chief, New York.
Joseph B. Gray, Captain, New York.
H. B. Helm, Ex-Dep. Chief, New York.
F. G. Kaiser, Captain, New York.
Thomas Kilbride, Lieutenant, New York.
Leo Lieberman, New York.
Mark W. Maclay, Captain, New York.
W. E. Mallalieu, New York.
C. E. Meek, New York.
William Moeller, New York.
Earl Olson, New York.
George Page, New York.
Michael F. Powers, Batt. Chief, New York.
E. L. Reed, Captain, New York.
Joseph D. Rooney, Lieutenant, New York.
Jerome Seigal, New York.
Frank A. Toomey, Lieutenant, New York.
Leland Wallace, Captain, New York.
Wesley Williams, Captain, New York.
William Paul Babcock, Captain, Nyack.
Lewis Armstrong, Asst. Chief, Old Forge.
Howard V. McKay, Captain, Ozone Park.
Nelson Thompson, Port Chester.
C. D. Stewart, Port Washington.
John F. Rogers, Deputy Chief, Poughkeepsie.
Joseph J. Butler, Lieutenant, Richmond Hill.
Michael J. McCarty, Richmond Hill.
Thomas McCarthy, Rochester.
Peter E. Costello, Batt. Chief, St. Albans.
James Brown, Batt. Chief, Suffern.
T. K. Howard, Deputy Chief, Syracuse.
John B. A. O'Connor, Captain, Tottenville.
Louis E. Besanceney, Lieutenant, West New Brighton.
James T. Lynch, Captain, West New Brighton.
George E. Rossbach, Batt. Chief, West New Brighton.
Earl Clow, Lieutenant, White Plains.
Joseph J. Fullam, Captain, Whitestone.
Arthur Braconnier, Lieutenant, Woodhaven.
William H. Taubert, Deputy Chief, Woodside.
Edward H. Seller, Asst. Chief, Yonkers.

PENNSYLVANIA

Charles E. Wood, Asst. Chief, Chester.
George Frymoyer, Supt. Fire Alarm Telegraph, Coatesville.
Edward A. Robb, Captain, Collingdale.
Robert A. Jones, Asst. Chief, Cresson.
Carl A. Hann, Asst. Chief, Franklin.
J. T. Coughlin, Deputy Chief, Greensburg.
W. R. Hohn, Asst. Chief, Greensburg.
Albert J. Utz, Asst. Chief, Greensburg.
W. C. McBride, Asst. Chief, Harrisburg.
Harry E. Miller, Asst. Chief, Lancaster.
Delaware County Firemen's Assn., Lansdowne.
William Wunderlich, Lansdowne.
John T. Lampluch, Lieutenant, Linwood.
John Nolan, Malvern.
Fred Carman, Asst. Chief, Meadville.
Charles H. Frysinger, Dep. Chief, Pen Mar.
George W. Churchill, Lieutenant, Philadelphia.
B. Frank Cocker, Captain, Philadelphia.
George H. Connison, Philadelphia.
Ralph E. Cooper, Ex-Assistant Chief, Philadelphia.
John C. Cost, Captain, Philadelphia.
Milford K. Doruff, Captain, Philadelphia.
William R. Dunham, Sr., Captain, Philadelphia.
James R. Eckert, Batt. Chief, Philadelphia.
Edwin N. Faye, Lieutenant, Philadelphia.
William H. Feeney, Batt. Chief, Philadelphia.
Joseph Freedman, Philadelphia.
J. G. Gaskill, Philadelphia.
John J. Glenn, Batt. Chief, Philadelphia.
Sidney Ivison, Lieutenant, Philadelphia.
Harry C. Kahn, Philadelphia.
John P. Merz, Philadelphia.
Joseph Nahill, Batt. Chief, Philadelphia.
W. W. Reussner, Captain, Philadelphia.
William Simmler, Deputy Chief, Philadelphia.
William J. Smart, Lieutenant, Philadelphia.
Horace Smith, Captain, Philadelphia.
William E. Sparangers, Philadelphia.
R. D. Wood Company, Philadelphia.
S. A. Fink, Pittsburgh.
Henry F. Schwartz, Batt. Chief, Pittsburgh.
G. L. Seth, Pittsburgh.
Harry A. Kauffman, Asst. Fire Marshal, Pottstown.
Edward Dell, Asst. Chief, Reading.
H. M. Weitzel, Captain, Reading.
Russell O. Baker, Captain, South Ardmore.
J. J. Adams, Asst. Chief, Sunbury.
Thomas J. Patton, Deputy Chief, Upper Darby.
L. B. Prince, Captain, Upper Darby.
Frank W. Adams, Jr., Asst. Chief, Vandergrift.
William B. Terry, Captain, Verona.
C. J. LeB. Clark, Asst. Chief, Wayne.
Firemen's Assn. of Pennsylvania, Wayne.
James Kane, Asst. Chief, Wayne.
J. E. Chalfant, Ex-Fire Commr., York.
H. E. Detwiler, City Mechanic, York.

Maine Chiefs Meet

Over a hundred fire officials attended the quarterly meeting of the State Association, Fire Chiefs of Maine, which was held in Bangor on April 12.

Chief Joseph W. Randlette, President of the organization and also head of the New England Association of Fire Chiefs, conducted the morning and afternoon sessions. Chief Joseph P. McCosker, Bangor Fire Department, acted as Chairman of the Entertainment Committee.

One of the principal addresses was delivered by the guest of honor, Chief Daniel B. Tierney, Arlington, Mass., President, International Association of Fire Chiefs. The meetings took place in the assembly hall of the Bangor Central Fire Station.

The program ended with a banquet in the Penobscot Exchange, and a round table discussion on "The Spring Clean-Up Campaign." Chief Charles O. Spear, Jr., South Portland, was the first speaker on this topic. The hazards of spring grass and brush fires were also discussed.

At the morning meeting an address of welcome was delivered by City Manager James G. Wallace, to which Chief Irving Doyle, Brewer, responded. George O. Mansfield, Chief Fire Inspector, Massachusetts Department of Public Safety, gave an illustrated lecture on the detection of arson. At the conclusion of his talk he was elected an honorary member of the association.

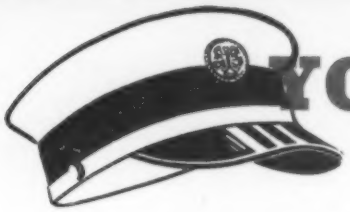
Chief Tierney told of the benefits of membership in the International Association and of the many important things accomplished for the improvement of the fire service.

At the afternoon meeting Chief Scott Morse, Bath, described the tragic explosion in the Plant Garage in Bath. The force of the explosion completely destroyed the building. Investigation revealed that there was no ventilating system in the garage and gas had accumulated during the night.

There was a floor show, consisting largely of numbers by dance school pupils from Biddeford. Chief Frank Cantera, Biddeford, and Charles E. Gorman, the Arthur Blanchard Company, arranged this part of the program.

State Insurance Commissioner C. M. Lovejoy, Augusta, showed the motion picture "The Underwriters Approve."

Assistant Chief Herbert P. Constantine, Bangor, read a very interesting account of the organization, development, and history of fire fighting in Bangor. He gave dates and details of the formation of the various volunteer units, purchase of apparatus, and the change from hand tubs to steam engines, and then to motor pumping apparatus. He also described the water system and the fire alarm telegraph. HARRY BELKNAP.



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are responsible for this—THE W'S

You, the Fire Chiefs of America, made us a challenge. You wa
a new Fire Engine . . . designed to fit your *1938* needs . . . enti
different from anything ever before conceived.

American-LaFrance answers your challenge.

Look at the Metropolitan—leader of the new line. Then study th
features—every one a *revolutionary improvement!*

SAFETY CAB ALL-STEEL—not wood with a light metal cove
Wide, roomy seats and full weather protection for five firemen.

OVERHEAD LADDERS shorten overall length. Easy to get at—
of the way of other equipment—fully protected from weather.

PROTECTED EQUIPMENT. All equipment is carried in the bod
providing safety and complete protection against damage and

CENTRAFLOW TWO STAGE PARALLEL SERIES PUMP is o
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AMERICAN FI

...'S FINEST FIRE ENGINE

...ore power—no gears to become noisy—less maintenance cost.

...UMP SUCTION—located away from controls—no interference ...ith operating engineer. Suction Hose carried in body. Full pro...ection from weather.

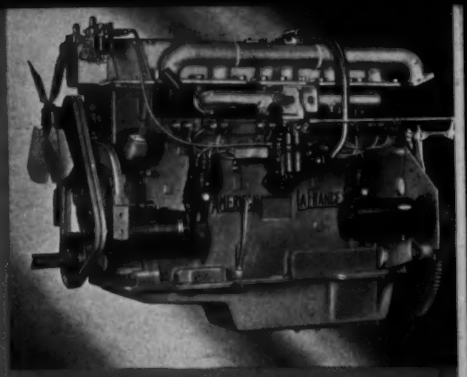
...ULL CAPACITY COOLING SYSTEM. The only Fire Engine with ... cooling system that is adequate (without auxiliary systems) for ...ither road or pump operation. No water robbed from the fire ...ump for cooling. No auxiliary cooler to become clogged.

...AFETY. All men in cab or body—no men on the running boards.

...ese features are not confined to the Metropolitan. You will find ...em in every American-LaFrance Pumper—from 500 gallon to ...500 gallon capacity.

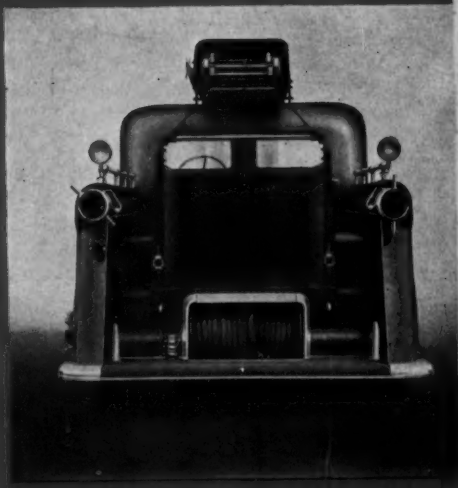
...nce again . . . American-LaFrance *proves why* the Fire Chiefs of ...merica continue to keep this famous name—ALWAYS IN FRONT.

...AN FRANCE



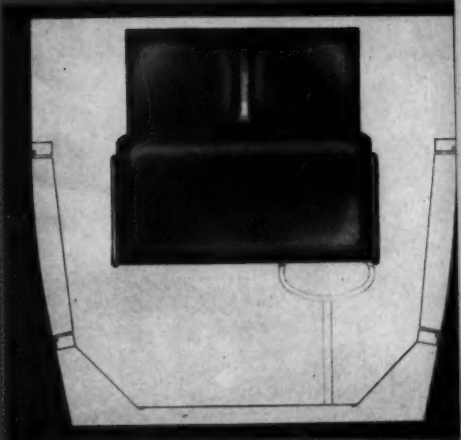
THE WORLD'S FINEST MOTOR

Performance writes this record: Departments that put the American-LaFrance V-12 in service STANDARDIZE on it! For the *finest* Fire Engine in the world—only the world's finest motor is good enough!



SAFETY AND CONVENIENCE

No traditional design hangover here! Body, ladder, and equipment arrangement are built for modern service, for convenience and protection.



A REAL SAFETY CAB

It's all-steel, of heavy gauge, electrically welded. Large windows of safety glass provide full vision and absolute protection. . . The windshield is hinged for emergencies (sleet, etc.)

Now

TURN THE PAGE!

. . . and here's the PUMP you wanted

The CENTRAFLOW

"Secondly, I believe centrifugal pumps, direct connected to multi-cylinder engines, is desirable, and I believe it will simplify the operation of the engines if such types are built."

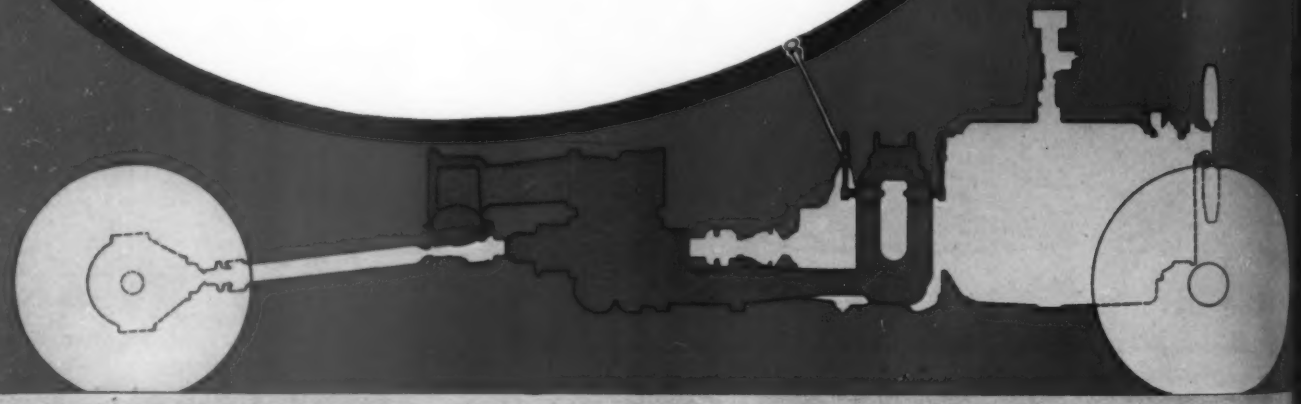
Reprinted from Proceedings of the 65th Annual Conference of the I. A. F. C.

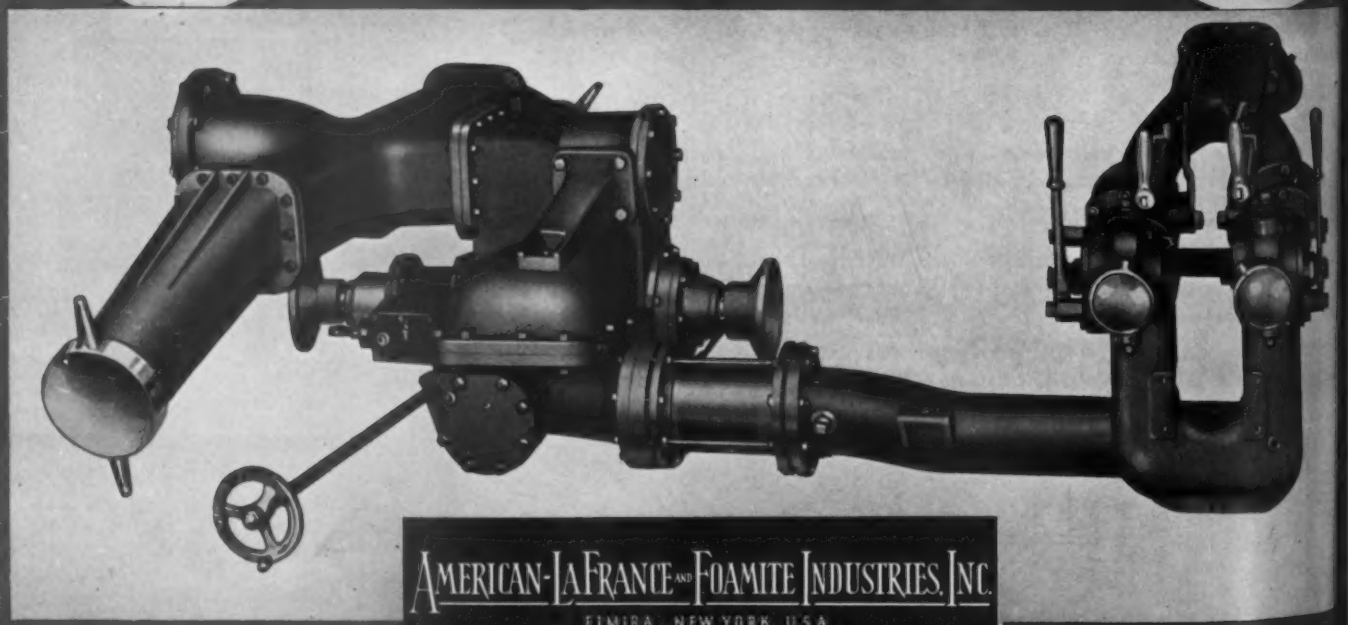
You told us the design of Pump you needed! So we have answered that challenge, too.

Only the CENTRAFLOW has all these features:

1. **Once pump is in operation, it is self-priming until drained.**
2. **No freezing of discharge gates or gauges.**
3. **Entirely new type of packing will last life of pump and has automatic adjustment.**
4. **Full ball-bearing construction—no plain bearings.**
5. **Every operation controlled from one position.**
6. **All-Bronze pump housing and impellers.**
7. **Monel-Metal sleeves for packing contact.**
8. **Replaceable wear rings on impellers and in pump housings.**

And that's only *part* of the story. . . You have never seen anything like the CENTRAFLOW PUMP in operation.





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THE ROUND TABLE

For Practical Discussion of Current Fire Department and Fire Management Problems

QUALIFICATIONS FOR THE FIRE SERVICE

DID you ever study a crowd?

In the sea of faces, there are some that appear to radiate intelligence, some are minus any trace of character, some are bronzed by long exposure to wind and sun, some show the signs of long hours of indoor work, and so on. In stature, there are always those who are above or below the average.

From an assortment of types, possibly as great, must be selected the young men who are admitted to the fire service to develop into possible officers.

What type of personality should be favored? Is education to be preferred to brawn? Is the one with the mechanical mind better than the one who has learned how to obey orders?

Who knows?

In this discussion, which is continued from the previous issue, many of the prominent Chiefs state which type they have found to be best suited for the fire service. In the box on the following page is the question that will be presented for discussion next month.

Discussion of the Question

Herbert R. Ferris, Chief, Greenfield, Mass.: I prefer the athletic type. I find the man with military training just as hard to govern and more so than the man without it. I like to train my men in my own way. With regard to education, the high school or college graduate does not possess all the qualities of a good fireman. He has a lot to learn after he joins the Fire Department.

In the matter of age, I believe a man should be 18 years when joining the call service and 21 years when joining the permanent force.

For the qualifications of good firemen, I would say that a man who doesn't drink intoxicating liquors to excess and preferably not at all, is superior. He must be clean in personal appearance, must study to improve himself, and to become a better fireman, must use good judgment, and must be interested in his job. The best checker or card player doesn't make the best fireman.

The physical and mental qualities should be the same. I find that a quick mind and a strong body go hand in hand in any Fire Department, no matter whether the department is located in a small town or a large city.

Daniel H. Shire, Chief, Mason City, Ia.: My choice of a good fireman would be one who has all three types in his make up. The man with military training should be better adapted to the fire service, for he would have learned to take orders and obey them before entering the service. The high school or college graduate fills the requirement of education, but there are more requirements for a good fireman than just education. I have seen college graduates make very poor firemen and I have seen men with no education make very good ones.

The ages between 21 and 26 years are best for entry into the Fire Department.

The principal qualifications are a good physique, at least a high school education, the ability to size up a situation and the ability to take orders and to carry them out. These are the same in every department.

T. P. Treadwell, Chief, Fort Collins, Col.: I think the man who is mechanically inclined is better suited to the fire service, as he understands the tools and appliances to the extent that he doesn't abuse or break them. The man with military training has learned the value of discipline and can accept criticism in the proper manner. The high school or college graduate cannot fill the requirements for a good fireman, unless he has the size and physique to be a fireman, although education does make for a better understanding for the profession of fireman.

It is better for a man to enter the Fire Department between 21 and 25 years of age. In this range of age, a man can find himself. He is alert and observing and can comprehend what is expected of him and is not set in his ways.

I would say the outstanding qualifications of a good fireman are a good moral character, alertness and willingness to work. The best fireman puts more in his job than he expects to get out of it. When given a job, he does it well or better than is generally asked, and is loyal to the service.

There should be no difference in the physical and mental requirements for firemen in a city of 20,000 and a city of 200,000 population, for fire fighting is a profession today. I can't see where a fire in a city of 20,000 isn't just as important to that particular city as a fire in one of 200,000, as all cities have their conflagrations and large hazards with which to contend.

H. L. Taylor, Chief, Rome, Ga.: I think there is a place in the Fire Department for men of athletic ability, mechanical ability, and executive ability. I see no advantage in having a man who has had military training. Any man with a high school or college diploma is better fitted for a place as a fireman, provided of course that he has all the other qualifications along with it.

A man should be within the ages of 21 and 31 when he enters the fire service.

In the matter of qualifications for a good fireman, I would put character first and foremost, physical fitness, second, and willingness to work, third. To be a really good fireman, he should possess the same physical and mental qualifications regardless of the size of the city.

Harry L. Ridout, Chief, Muskegon Heights, Mich.: I feel that the athletic and mechanically minded type are more essential than the executive type. I feel that the athletic type is even more important, as he has the physical requirements which would fit him for the tough jobs to be met in the fire service. The mechanically minded would be essential in small departments having no repair division. Military training makes a man better fitted for fire service, as he is more responsive to discipline.

The high school graduate or the

HERE IS THE PROBLEM

What type of man is your choice for the fire service—athletic, mechanically inclined, or the executive type?

Is the man with military training better adapted to the fire service than the one without it?

Does the high school or college graduate fill all the requirements for a good fireman?

What age is best suitable for one to enter the fire service?

What fundamentals do you consider necessary for a good fireman?

Should physical and mental requirements be different for a city of 20,000 than for a city of 200,000 population?

college graduate should fill the requirements for a good fireman, as far as mental qualifications are concerned, but physical fitness cannot be overlooked or put aside. Education is necessary for an officer and for the future officers coming from the ranks.

In my opinion, a young man should enter the fire service at or about the minimum age for entrance. From a standpoint of physical fitness, his best years are ahead of him, and in starting early he could have more days of leisure when retiring on a pension.

A good fireman should be young, alert, physically sound, able to meet the weight and height requirements, and should have at least a high school education or its equivalent.

Physical and mental requirements for firemen should not differ greatly in a city of 20,000 or 200,000, since the basic problems are much alike in either case.

A. E. Cooke, Chief, Pomona, Cal.: I much prefer the athletic type of man for the fire service, as his occupation demands strength and agility. From this type we mold our executive or mechanically minded man. Personally I like the non-military type, as we must train our personnel for their particular field in the fire service. With regard to education, I would choose the high school graduate. The college man is difficult to educate to our standards, because of his advanced education. The high school graduate is, in my opinion, ready for fire college training.

The majority of cities employ men of 21 years of age. I prefer a man 18 years of age, as at that age he is much more pliable for fire training.

As fundamentals for a good fireman, I would set forth character, health, education, good personal appearance, good family background, and an even temperament.

I believe all fire service requirements in cities having paid Fire Departments should be standardized, regardless of size of city or department.

E. C. Hoskin, Chief, Highland Park, Ill.: I think the mechanically minded man makes the best fireman. In my opinion the man who has had military training is better adapted to the fire service, as he knows what discipline means. The high school or college graduate, if he intends to make the fire service his life work, usually fills the requiremnts for a good fireman. From 25 to 35 is the best time to enter the Fire Department.

Initiative and ability to think are the two fundamentals necessary for a first rate fireman. These are the same in a city of 20,000 or one of 200,000.

Thomas F. Finnegan, Chief, Helena, Mont.: In my opinion, the man who is mechanically inclined is the most suitable for the fire service. I prefer the man with military training, because of his disciplinary teachings. The high school and college graduate would have some advantages in some respects. I think the ages between 25 and 35 years are the best for a man to enter the srvice. With regard to the fundamentals necessary for a good fireman, I would say a willingness to study to improve his ability is the most important.

The physical and mental requirements should be no different in cities of 20,000 or 200,000, as conditions are more or less alike.

HERE IS THE PROBLEM FOR THE NEXT ISSUE

1. Do you believe that drills (such as those including the setting of pumping engines, laying of hose lines, placing ladders, etc.) conducted against time are beneficial or detrimental to the efficiency of the Fire Department?

2. Do you believe it necessary that evolutions be conducted against time at the training school.

3. What is there to be said in favor of conducting such evolutions against time?

4. What arguments against?

Bacil Roberts, Chief, Inglewood, Cal.: I believe that the combination of the three types is necessary, but the mechanically inclined man would be more valuable to the fire service than either the athletic or executive type. I don't believe that the man that has had military training is any better adapted to the fire service than one who has not had that training. I do not think that the high school or college graduate fills all the requirements of a good fireman.

I prefer men between the age of 21 and 30 upon entering the fire service.

In selecting men for the service, I would choose those who have good characters, and who are mentally and physically sound. I do not believe that these requirements should differ no matter what the population might be.

R. E. Holcomb, Chief, Olympia, Wash.: Of the three types mentioned, I would select the athletic type. I think the man with military training is more adaptable to the fire service. The college or high school graduate usually has the requirements, provided he can be disciplined. I prefer entrants to the fire service within the ages of 21 and 31 years of age.

I would choose a man with an active mind, who is able to think for himself, who is physically able to handle all equipment, and who can take lots of abuse from exertion, smoke, heat and cold.

These physical and mental requirements should be the same in all cities, as the hazards are similar. The smaller cities need well trained men as well as the larger ones.

Hugh M. Topping, Chief, Whittier, Cal.: I prefer a man of athletic attainment and mechanical ability. With regard whether military training is necessary, I would say that a man without military training, with proper background, will adapt himself to the rules and regulations of the fire service more proficiently and in less time than a man with it. While education is a real asset in all vocations, my experience in the fire service has been that the best material comes from the ranks of the laboring class, with grammar school education.

I believe men of the ages from 25 to 30 years are better adapted to the fire service. I would say that physical fitness, interest in the fire service, a willingness to work, fearlessness, good moral character, an alert mind, and cheerfulness in obeying orders are the fundamentals for the fire service. The physical and mental requirements are absolutely the same in the fire service, regardless of the size of a city.

D. W. Brosnan, Chief, Albany, Ga.: I prefer the athletic type of man for the fire service. I have had better success with men without military training. The high school graduate does fill the requirements, but I see no need for a college graduate. From 21 to 25 years of age is the best time for a man to enter the fire service. The good fireman is one with a clear head, who is quick to make decisions and who is physically fit. I have had fine results from men who were good baseball players. I have found that their brains and hands function together and in my judgment, this is most necessary for a good fireman. I would not differentiate between the mental and physical requirements for firemen in a large city and those in a smaller one.

Henry Ginn, Chief, Tyler, Texas: I prefer a young man who is mechanically inclined and who has executive ability. A man with military training is better adapted for fire service from a discipline standpoint. I think that a man with a grade school or high school education can fill all the requirements for a good fireman. From 21 to 30 years of age is a good time to enter the Fire Department. In choosing a man for the service, I would choose one with good common sense, who has an ability to learn, who has good physical strength and nerve, and who has fine principles.

The physical and mental examinations should be the same in a town of 20,000 population or one of 200,000.

George E. Wallace, Chief, Modesto, Cal.: I prefer the mechanically inclined man. However, a good firman should be a combination of the athletic type, the executive type, and the mechanically inclined. Military training helps to adapt men to the fire service. I do not believe that a high school or college graduate fills all the requirements for a good fireman. The ages between 21 and 30 are the best to enter the fire service. I would set forth the following requirements as necessary for a good fireman: Good health, possession of all faculties, no physical deformities or disabilities, the ability to take and execute orders in a military fashion, and the desire to succeed.

I feel that the physical and mental requirements should be the same in all cities.

Andrew T. Callahan, Chief, Harrison, N. J.: Men joining the Fire Department should be a combination of all three types. They should also have a good education, as well as a whole lot of common sense. With proper training they will make good firemen and may become officers. I do not feel that the man with military training is better adapted for the fire service. Neither do I believe that the high school or college graduate possesses all the requirements for a good fireman. As for the best age to enter the fire service, I would say about 25 years of age.

I consider good health and good moral character the fundamentals necessary for a good firemen. The physical and mental requirements for firemen should be the same in all cities, regardless of size.

G. M. Twaddle, Chief, Reno, Nev.: In selecting men for this department, we try to get those in good physical condition, with some mechanical and executive ability. We do believe that men with military training are better adapted to the fire service. While a fair education is a very desirable factor in the fire service, it does not mean that any man with a high school or college diploma would be a good fireman. The ages best adaptable to enter the fire service are from 21 to 35.

Physical condition, character, intelligence, and of course, proper size, are the fundamentals we consider necessary. We believe that physical and mental requirements should be the same in all departments (paid departments), regardless of the size of the city.

Fred W. Cordes, Chief, Maplewood, N. J.: The mechanically inclined is my choice of man for the fire service, as there is a certain amount of mechanical work involved.

The only way in which a man with military training might be better adapted to the fire service is that he is accustomed to discipline, and from the beginning of this service might be easier to control, whereas another man would require a certain amount of time to break into this phase of the service.

I do not feel that a man with a college or high school education is better adapted to the fire service. Of course, with this education, he is better equipped along educational lines than one without. Twenty-five years in my opinion, is the best time to enter the fire service. Physical fitness, courage loyalty, honesty, and personality are all requirements for a good fireman.

As a fire in a certain type of building in a city of 200,000 population is not any more difficult to fight than the same sort of a fire in a city of 20,000, I do not think the mental and physical requirements should be any different.

Frank W. Fuller, Brainerd, Minn.: I think a combination of all three types would be ideal, but if I were choosing a man with only one qualification, I would choose one who was mechanically inclined, because I think he could be trained to the needs of the fire service.

I think the man with military training is very good material for a fireman, because he has been trained in, and is susceptible to discipline. I do not mean that it is necessary or desirable for a fireman to snap their heels every time an officer approaches, but I do believe discipline makes them more receptive to orders.

An educated man is very desirable, but not at all necessary. He does not fill all of the necessary requirements for a good fireman.

From my experience, I would choose the man between the ages of 23 and 32.

I believe any man in good physical condition, with average intelligence, and with fortitude enough to stay with his buddies in a tight place, can be made into a good fireman.

I believe the physical, mental and all other requirements should be the same for a fireman, no matter what the population of the town.

G. L. Mathews, Chief, Pocatello, Idaho: I prefer the athletic type, as he is likely to be quick and active, is strong, and a quick thinker. I believe that equal in other ways, a man with military training should be the better fireman, as he would obey orders more readily. In my opinion, a man with a high school or college education does not fill all the requirements for a good fireman. I believe twenty-two years of age would be the best time for a man to enter the fire service.

The ideal fireman should be strong, active, willing, neat and must be interested in his work. If there is any difference in the mental and physical requirements of a city of 20,000 and one of 200,000, I believe the smaller city should have the advantage, to make sure the men have some brains and some strength.

Herbert Stutz, Chief, Pitsburg, Ohio: I believe that to make a good Chief, a man should have some military experience, should be a good mechanic, and have not less than a high school education. Instruction in law is very helpful. From my own experience, for I have had all of the above, I find such training very helpful.

I also find that men who are married, who are past twenty-five years of age, and who are mechanically inclined, are better adapted for stability as fire fighters. But in a town of 300 population, it is not always possible to get just the exact type of man you prefer. But I like to have men who are vitally interested in the Fire Department.

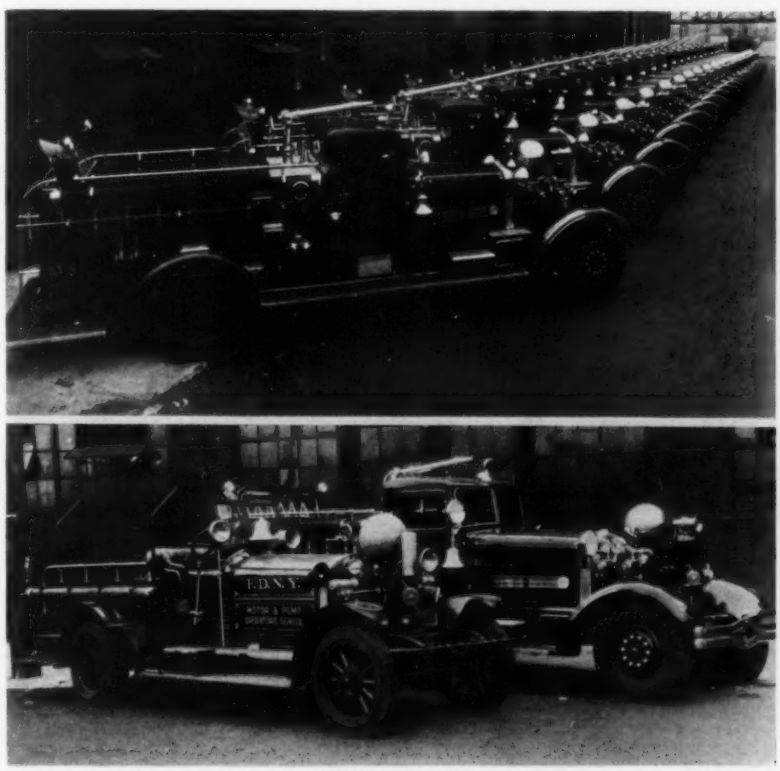
Henry W. Taft, Chief, Norwich, Conn.: My choice of a man for the fire service would be a combination of the mechanically minded and the athletic type. Military training means nothing. The ability to be a good fireman must be born in a man. The high school or college graduate fills all the requirements, especially the athlete. The best age to enter the Fire Department is 21. As requirements for a good fireman, I would say good character, moderate temper, and good physique.

The physical and mental requirements should be no different in a city of 20,000 than in one of 200,000, because both are essential.

D. J. Noonan, Chief, Vallejo, Cal.: I prefer men who are mechanically inclined because, from my past experience, I find they adapt themselves more easily and take more interest in the work.

The man with no military training is better adapted, because he is more willing to listen to the instructions of his officers and learn from them.

I do not find that the man with a college or high school education is necessarily better adapted to the fire service. The man with average intelligence, who is able to receive instructions and carry them out, and who is



New Pumpers Delivered to New York, and the Oldest and Newest

Twenty Ahrens-Fox pumpers have been placed in service in the New York Fire Department recently. Above the units are assembled like an unbroken line of soldiers. The lower photograph gives a comparison of an Ahrens-Fox pumper bought by New York in 1913 as compared with one of the new models acquired by the city.

I. A. F. C. SUSTAINING MEMBERSHIPS

To date six sustaining memberships have been enrolled by the International Association of Fire Chiefs through the efforts of the committee headed by Vincent C. Stanley, of the Gamewell Company. These sustaining members are:

The Gamewell Company, Newton Upper Falls, Mass.
American District Telegraph Company, New York.
The Seagrave Company, Columbus, Ohio.
The Ahrens-Fox Fire Engine Company, Cincinnati, Ohio.
Peter Pirsch & Sons Company, Kenosha, Wis.
The Texaco Company, New York.

The revenue from sustaining memberships will play an important part in the nation-wide educational program of the association soon to be launched.

willing to adapt himself to the working conditions, makes a better fireman than one with simply a good education.

I believe the best ages to enter the fire service are between 21 and 30.

The man with a cool head and who does what he is told has the requirements for a good fireman.

The physical and mental requirements should be the same for all cities and towns, regardless of population, as all should have men of good physical and mental rating.

Ernest Yett, Chief, Bremerton, Wash.: I prefer the man who is mechanically inclined. I do not feel that a man with military training or with a high school or college education is better adapted, or has all the qualifications for a good fireman.

In my opinion, the ages from 20 to 26 years are the best for entering the fire service.

The fundamentals which I consider necessary for a good fireman are physical fitness, mental alertness, co-operation and congenialty, an even temperament, temperance and cautiousness.

I feel the mental and physical requirements should be different in cities of different populations, for a smaller department requires a more thorough and more all around knowledge of fire fighting.

William O'Neill, Chief, Weehawken, N. J.: I would choose the building trades mechanic, because his work in old and new buildings has fitted him with a knowledge of the general layout of floors, partitions, and the construction of all type of buildings.

I do not feel that the man with military training is better adapted to the work of a fire fighter. I have seen men with this training who find it harder to live up to the rules and regulations than some without any.

A high school or college graduate does not, in my opinion, fill all the requirements for a good fireman, because he needs many other fundamentals besides a good education. I feel that the ages between 21 and 40 are the best to enter the fire service.

As fundamentals for a good fireman, I would say good health, good character, and temperate habits. A man must have the fire-fighting disease.

The physical and mental requirements should be the same regardless of the size of the city. A fire in any type of structure is a fire, whether it is in a city of 20,000 or one of 200,000 population and must be fought and extinguished in a workmanlike manner.

C. L. Morris, Chief, Manhattan, Kan.: I prefer the man who is mechanically minded. Provided he has other qualifications, military training should be of some advantage. Education in itself has no particular value. The ages between 21 and 25 are the best adaptable to enter the fire service.

I believe that in order to make a good fireman, a man must have a good physique, must have at least a high school education, must be eager for information, and must be willing to take orders and to carry them out. I feel that the qualifications for a fireman should be the same in all cities regardless of size.

Irving S. Zorb, Chief, Butler, Pa.: I find the man who is the athletic type and who has had no military training is often better adapted to the fire service.

I have often found that the high school or college graduate does not fill all the requirements for a good fireman. I find that the best age to enter the fire service is 21.

A good fireman must be one who is able bodied, who is not afraid of work, and who is ready to go at any time. These qualifications are the same in any city.

M. N. Cleveland, Chief, Sanford, Fla.: I believe it takes a combination of all three types to make a first class Fire Department.

The man with military training has an advantage over one without, as he has had training in discipline and can give and take orders. However, the man who has not had any such training often makes as good or better fireman, after he has been subjected to Fire Department training.

I believe that every fireman should have high school or college education, but it does not necessarily hold true that he fills all the requirements for a good fireman. He needs the training that the Fire Department gives, coupled with high school or college education, to make him a good fireman.

I think the man between the ages of 21 and 30 is better adapted to enter the fire service.

I think a man should be physically, mentally and morally fit. He should have broad vision, must be calm, quick and alert, and not of a nervous disposition.

I don't believe that the physical and mental requirements should be any different in a city of 20,000 than in one of 200,000 population, because men in the smaller cities have practically the same things to combat, though perhaps on a smaller scale.

* * *

Answers to Previous Questions

The following replies are in answer to a previous question on sleeping in fire stations, now that some departments have the three-platoon system:

C. J. Henry, Chief, Lexington, Ky.: I am of the opinion that when a city grants eight hours on duty and sixteen hours off duty, no fireman should expect that city to pay him for sleeping eight hours. The beds should be removed from all fire stations. Where Police Departments have eight hour shifts and the services of many officers, detectives and policemen require them to remain on inside or indoor duty, they are not allowed to go to bed or sleep on duty. Then why should a fireman be granted the privilege of going to bed?

Today, with the constant changes in the methods of fire fighting, it would be possible to have schools at night. Six or seven hours could be devoted to vocational education and training for firemen.

I believe that a great many departments would be better satisfied with increased salaries, rather than a decrease in working hours. It is impossible for them to get a higher salary if they ask for eight hours. By demanding it, they will cause the taxes to be increased in many cities. The situation will ultimately wind up with many departments undermanned and this means an inefficient Fire Department.

Dies in Unusual Accident

John A. Pulford, a fireman of Lansing, Mich., died at a fire in an unusual accident, and becomes the first fireman to be killed since Hugo R. Delfs became Chief, thirty-four years ago.

Witnesses said that the fireman had become groggy from smoke. He was emptying water from a bucket into a tank on the fire apparatus when he slipped on the ice. As he fell, his head struck the hub cap and he died as the result of a brain concussion.

He is survived by widow and two children. His funeral was one of the largest ever held in the city.

Florida Firemen Elect Torres

All attendance records of the Florida State Firemen's Association were broken at the 13th annual convention held at Fort Lauderdale, at which Benn Torres of Tampa was elected President.

Following the business session on the opening day, there was a motor tour of the city, and a visit to the Lion Farm. Following a barbecue, a dance was held at the Las Olas pavilion. More than 250 firemen had registered.

The new officers are in addition to President Torres, Marvin Townsend, St. Augustine, Vice-President; F. C. Pfaender, Chattahoochie, Secretary; M. A. Pfaender, Winter Haven, Statistician; B. B. Hart, Daytona, Treasurer. The next convention of the association will be held at Tampa.

Questions and Answers

NOTE—Readers are invited to send in questions, which will be answered in the order received. Names are omitted from questions unless otherwise specified

Acknowledgment

A request was published on this page in the March issue, submitted by a reader who sought copies of charters, constitutions and by-laws of volunteer Fire Departments.

Acknowledgment is made to the following who submitted specimens of these documents from their respective organizations: Horace Jacobs, Secretary of the Abington Fire Company, Abington, Pa.; Irving W. Johnson, Chairman of the Publicity Committee of the Takoma Park Volunteer Fire Department, Takoma Park, Md.; and Charles M. Hollis, Jr., President of the Seaford Volunteer Fire Department, Seaford, Del.

Nozzle Pressure and Discharge

To the Editor:

Would you kindly work out the following problems:

1. First Layout—Two 100-foot lines of 2½-inch hose into a deluge set with a 2-inch tip, and one 100-foot line of 2½-inch hose with a 1⅛-inch tip. The pump pressure is 124 pounds. What is the nozzle pressure? How many gallons of water per minute?

2. Second Layout—One 100-foot line of 2½-inch hose with a 1⅝-inch tip. The pump pressure is 200 pounds. What is the nozzle pressure? What is the number of gallons per minute?

3. Third Layout—One 100-foot line of 2½-inch hose with a 1¼-inch tip. The pump pressure is 200 pounds. What is the nozzle pressure? What is the number of gallons per minute? M. J. K.

Answer 1: In problem No. 1, you have an engine at 124 pounds pressure pumping through three lines of 2½-inch hose. Two of the lines are siamesed into a deluge set equipped with two-inch nozzle, and the other line, a single line of 2½-inch hose, is equipped with 1⅛-inch nozzle.

Nozzle pressure = E.P. ÷ (1.1 + K l) where K is a factor depending upon the nozzle and hose diameters. For two parallel lines of 2½-inch hose, siamesed into a deluge set equipped with 2-inch nozzle, the value is .418.

L, the number of 50 foot lengths of hose in the line, from the engine to the nozzle, is 100 ÷ 50 or 2.

Then nozzle pressure = 124 ÷ (1.1 + .418 × 2).

Or nozzle pressure = 124 ÷ 1.936, or 64 pounds.

Discharge = 30 × d × d × $\sqrt{p}$, where d is the diameter of the nozzle in inches, and p, the pressure in pounds per square inch.

Or discharge = 30 × 2 × 2 × 8.
= 960 g.p.m.

Solving for the single line of hose equipped with 1⅛-inch nozzle, K for this layout equals .167.

L, the number of 50 foot lengths in the line, equals 2.

Then N.P. = 124 ÷ (1.1 + .167 × 2)
= 124 ÷ 1.434, or 86.47 pounds nozzle pressure.

Discharge = 30 × d × d × $\sqrt{p}$
= 30 × 1⅛ × 1⅛ × $\sqrt{86.47}$
= 30 × 1.125 × 1.125 × 9.3
= 353 g.p.m.

Answer 2: Here we have a single line of 2½-inch hose 100 feet long and equipped with 1⅝-inch nozzle. Engine pressure is 200 pounds.

K, for 2½-inch hose with 1⅝-inch nozzle = .680.

L, the number of 50 foot lengths of hose in the line = 2.

Then nozzle pressure = 200 ÷ (1.1 + .680 × 2)
= 200 ÷ 2.46 = 81.3 pounds nozzle pressure.

Discharge = 30 × 1⅝ × 1⅝ × $\sqrt{81.3}$
= 30 × 1.625 × 1.625 × 9.016.
= 714 g.p.m.

Answer 3: The engine is operating at 259 pounds pressure, and is pumping through 100 feet of 2½-inch hose equipped with 1¼-inch nozzle.

K, for 1¼-inch nozzle on 2½-inch hose, equals .248.

L, the number of 50 foot lengths of hose in the line equals 2.

Then nozzle pressure = 259 ÷ (1.1 + .248 × 2)
= 162 pounds nozzle pressure.

Discharge = 30 × 1¼ × 1¼ × $\sqrt{162.}$
= 30 × 1.25 × 125 × 12.72
= 596 g.p.m.

K for Small Nozzles

To the Editor:

Will you be kind enough to tell me what "K" to use on ½-inch, ⅝-inch and ¾-inch tips?

Answer: The values of K for the various sized nozzles you gave, when attached to 2½-inch fire hose, are as follows:

For ½-inch nozzle on 2½-inch hose, .00625.

For ⅝-inch nozzle on 2½-inch hose, .01527.

For ¾-inch nozzle on 2½-inch hose, .03164.

The last two figures may be dropped from each of these factors without producing any serious inaccuracies.

To find the value of K for any other size of hose than 2½-inch, divide the value of K for a single line of 2½-inch hose, using any nozzle, by the factor of any other line employing the same sized nozzle. For example, if we were to find the value of K for ½-inch nozzle on 1½-inch rubber lined hose, we would divide the value of K for ½-inch on 2½-inch hose (.00625) by the factor for converting 1½-inch hose to 2½-inch, which is .074, which gives .0845, the value of K for ½-inch nozzle on 1½-inch hose.

Explosibility of Oxygen and Oil

To the Editor:

I would like to obtain some information on oxygen. I understand that oil and oxygen, when compressed, will explode. Does this same condition exist under ordinary circumstances? For instance, is it safe to enter an oil storage tank with an oxygen mask? If there was a slight leak in the piping on the mask, would there be a possibility of an explosion?

E. J. B.

Answer: There should be no danger whatsoever in using an oxygen helmet in an oil tank. The hazard of oxygen and oil is created when a mixture of oil and oxygen is compressed to fairly high pressures. Explosions are apt to occur under these conditions.

The effect is not unlike that produced in a deisel engine, where a mixture of atomized oil and air is compressed to such a temperature as to ignite the mixture. With oxygen, however, combustion (explosion) takes place at a much lower temperature, and therefore a much lower pressure.

Salt for Chimney Fires

To the Editor:

How much value has salt when used to extinguish chimney fires?

A discussion has arisen among those interested in fire fighting in our town, but the firemen still stick to their booster lines and ponies. Are we right?

Answer: If the fire is burning at the base of the chimney, or in the furnace, dampened salt thrown on the fire will cause the generation of hydrochloric acid gas. This has a material effect in smothering the fire, though it is not as effective as some of the chimney fire compounds on the market at the present time. The booster line is highly effec-

tive for chimney fires, if a spray nozzle is used, with very fine spray, and is lowered down the affected chimney. Salt is not nearly as certain to produce results as is the spray nozzle.

3-Alarm Blaze Fatal to Fireman

Six Boston firemen were burned and injured, one fatally, when they were caught in a back draft explosion while fighting a fire that caused damage estimated at $50,000 in the J. J. Newberry Company variety store on Massachusetts Avenue, Back Bay. Three alarms were sounded.

Hoseman Cornelius Noonan, Engine Company 33, died from the effects of his burns.

The blaze originated in the cellar from an unknown cause and had apparently been smouldering for hours before it was discovered by a taxicab driver shortly after 6 a.m. Dense smoke poured from the building, a two-story brick structure, and while the firemen were inside the store preparing to operate cellar pipes through holes chopped in the floor, a sudden hot air explosion occurred and the first floor was instantly enveloped in flames. The men abandoned their hose line and ran for the exits; but were badly burned before they could reach the street.

The response of apparatus was as follows: First alarm, Engine Companies 33, 37, 22, and 23; Ladder Companies 15 and 26; Rescue Company No. 1, and Chiefs of Districts Nos. 7 and 8. Second alarm, Engine Companies 13, 3, 26, 10, and 43; Ladder Companies 12 and 13; Chief of Division No. 2, and two lighting plants. Third alarm, Engine Companies 6, 24, 34, 32, 15, and 42; Chief of Department, and fuel truck.

Chief Samuel J. Pope was in charge of department operations, assisted by Deputy Chiefs John F. McDonough and William F. Quigley, and District Chiefs William Mahoney and Daniel Martell. One wagon gun stream was operated. Cellar pipes were worked from the sidewalk and from a rear alley. The blaze was brought under control in about an hour and a half.

Sections of the first floor with the store counters collapsed and fell into the cellar. The fire penetrated to the second floor, but was checked before much damage was done. A hole was made in the wall of an adjoining shoe store through which a hose stream was operated. A dividing wall in the building aided in checking the spread of the fire to other stores in the block. Salvage covers were spread by the Boston Protective Department.

HARRY BELKNAP.

By William Paul Babcock

"Let the Insurance Companies Do It"

THAT is a very familiar cry sent up by opponents of Fire Departments doing salvage work.

Another is "Who are you working for, the insurance companies or the city?"

Well, I worked for the insurance companies once (them *was* the days!) but I don't now and this fever that has spurred me on these many years I caught *before* I worked for insurance interests and so it has nothing to do with that period of my life spent as a "surveyor" (inspector to you) in the city of New York.

One thing I learned about insurance companies that theirs is strictly a business, just like selling potatoes or ice cream or what have you, and they are darned well determined to get theirs, legitimately. So if you think that any city which enjoys the services of an insurance salvage corps isn't paying for it—well, I don't.

But I promised you a story about an up-State Chief and his job of *uninsured* property saving. So without further preliminaries, here it is:

On Sunday March 13, 1938, fire broke out in a frame building, on the second floor, directly over the offices of the WPA, in the city of Kingston, N. Y., early in the morning. Upon arrival, and after seeing that the necessary lines were in position (mind you, *after* extinguishment operations are in proper order), Chief Joseph L. Murphy directed such men as he could spare (from a total of six) to spreading salvage covers in the WPA offices on the ground floor. The fire was put out in good time and here's what the local director of WPA wrote to the Chief:

"The fact that the fire was confined to a small area is a tribute to the effectiveness of the methods and personnel of your department. However, what amazes me is that the WPA offices were in no disorder and suffered no damage from water. The records and furnishings were completely protected by your department in covering the entire office space of 2,400 square feet before starting to fight the fire. Our office was able to function as usual Monday morning."

The condition was reported to headquarters in Albany and the State Director commented similarly.

Any officer should feel proud to receive such letters. But do you get it all? Here was property in which every man Jack of us had a vested interest—*and how!* If WPA is expensive, why make it more so by having to duplicate all the accounts and other papers of this office? Public records as a rule are *not insured*, and yet they are extremely valuable, sometimes irreplaceable. So Chief Murphy was *not* working for "the insurance company," but he was working for his own city and many other cities throughout these "Benighted" States, and he did us all a good turn, not through luck, but through good fire engineering, by being *prepared* to *prevent* damage to everybody's property.

But if those papers had been insured and Chief Murphy had *not* protected them, their loss would have stood against him and his outfit, and losses, you know, are reckoned to some extent when your city is surveyed for rating. And *who* keeps those "insurance companies" going? You and I who pay their rates. So after all, we only protect our own interests when we keep losses down, and can you prove that *most* fire damage is *not* due to water?

* * *

I had some very interesting correspondence with Chief Frank C. McAuliffe, of the Chicago Fire Patrols, who accepts my challenge to the "14x18 footers" to prove their position.

As should be the case when two honest and earnest men debate an issue, we both gave a little ground.

I'll give you his side next month, and herewith wish to thank him for being big enough to bend down and lend a hand to us small fry of the volunteer element.

I don't know it all yet, and we all can learn much from men who have been doing things in a big way.

If there are any other "14x18 ers" I'd like to use their comments along with Chief "Mack's," so *please* let me hear from *you* before firecracker day.

* * *

P.S. Ye ole Compositor pulled one on me last month. Guess he don't git to read the Scripture overmuch. I sez "vErily," and he makes it "vArily" which might mean somet'n else again.

Fighting the 3-Alarm Fire in Back Bay Boston

Our inquiring reporter overhauls the firemanic news of the day.

A Wild Ride for a Woman

Mrs. Donald Dwyer, young woman operator of Waterford (N. Y.), is still talking about her "big moment." Seems that, as operator, she received a call when her husband phoned for the F. D. to extinguish fire in her burning home. She put in alarm, then jumped one of fire trucks, reaching fire in time to see her husband rescue their two small sons from structure.

No Fire in "Red Hell"

'Twas a natural mistake. And not even smokeaters blamed neighbors who directed them to the "Red Hell" section of Elberton (Ga.) when, truth to tell, it was actually in "Sweet Heaven" that a home was belching fire and smoke. Fact is, Red Hell and Sweet Heaven are nighboring negro districts in Elberton.

You Wouldn't Call 'Em "Milk Sops"?

After exhausting supply of water in a cistern the Warsaw (Ind.) firemen stopped a passing milk truck and pumped 500 gallons of its lactic cargo on the burning farm home of Mrs. Ed Hoagland, saving it from complete destruction.

Couple "Necktie Parties"

Wm. Sinchichem (as he gave his name), New York City, shouldn't have worn a necktie. It was his undoing when Miss Sadie Zucker, aged 21, a bookkeeper on lower East Side of New York, saw him dart from beneath ground-floor stairway and at same time saw a flash of flame from a baby carriage under the staircase. Without any hesitancy Miss Zucher grabbed the gentleman (?) by his tie and hung to it, screaming for help, which came within few minutes in form of angry neighbors who gave suspect the works.

Another, and slightly different, story was told in same edition of same paper. This was headed "Woman Killed by Necktie Blaze" and told how Mrs. Helen Le Vourne, aged 41, of Paterson (N. J.), used a cleaning fluid on some neckties and how the fluid ignited her dress. Her husband, returning from taking their daughter to school, found her still smouldering on the basement floor. Hospital physicians pronounced her dead.

Brother—Page Mr. Ripley!

This story actually begins with the St. Patrick's Day flood of 1936. During that excitement a puppy was born. His master, Howard Taylor, of Pittsburgh (Pa.), named him "Captain Flood" and grew very fond of him. Among other tricks he taught him to blow out matches when Taylor lighted his pipe. But, last month, when fire started in the basement of the Taylor home Capt. Flood found he wasn't equal to the job. He huffed and he puffed—but the fire spread. There was only one thing to do and that was to awake his master and mistress. And this he did—in time to save the house. Orchids to "Capt. Flood."

Here's Another for "Rip"

In Albany (N. Y.) four kittens were born behind the driver's seat of a fire engine speeding to a fire . . . believe it or not. The quartet, we understand is thriving, but all of 'em think the siren is their father. Now you tell one.

Now You Tell One

Earl Avey, foreman America Hose Co. No. 4, Mount Holly (N. J.), for 16 years a newspaper man vouches for this'un. Add it to your collection of "tall stories."

Seems that one night last month Monroe B. Smith, of Ridgeway Street, Mount Holly, stabled his faithful car in his garage, leaving everything serene. This was at 10.30 p.m. Some time after midnight the neighborhood was aroused by the continual sounding of a horn and, upon investigation Mr. Smith's car was found to be on fire—and the car was standing in the driveway in front of the garage. The department responded promptly and held damage to between $300 and $400 for garage and car. Firemen figger that a short circuit in the ignition wires sounded the horn and carried fire into motor and to top of the car. The contact started the motor and, as Mr. Smith always left his gears in reverse, the machine backed itself through the garage doors and came to rest in the open, being halted by a fence.

F. D. Has to "Thumb Rides"

Out in Audubon (Ia.) they're keeping a tow car near the fire house these days. If there's a blaze the fire truck will have to be towed to the scene because en route to a recent fire the truck's drive shaft broke and ever since the officials have been hunting for a shaft that would fit. The firm from which the truck was bought quit business six years ago.

Hot Off the Tape:

Louis Neidich, aged 25, vamp of Burlington (N.J.) told the Justice of the Peace that he'd phoned an alarm of fire to his company "just for the ride." He took a fine of $10 on charge of disorderly conduct. He oughta got life. . . . When Fire Chief Albert Rowe, Terre Haute (Ind.) went into city hall on business, policemen noted smoke pouring from his car, grabbed garden hose and doused blaze. . . . On this subject, Eng. 15 N.Y.F.D. caught fire while responding to a false alarm on the lower East side, the other evening. . . . Over in Russia, because firemen neglected to bring ladders, fire in a workers' community house in Irkutsk killed nine people. . . . Boys trying to burn paint off a bicycle were badly burned, in New York City, when torch exploded. . . . In Union (N.J.) Mrs. Concetta Miele is spending 100 days in jail because she turned in seven false alarms. She lived in an old trolley car, near the railroad and claimed she turned in alarms because every time a train went by her "home" was "endangered by sparks." . . . In the much written-up "blackout" at Farmingdale (L.I., N.Y.) the town's fire siren played the "heavy part" by sounding the signal for "lights out." . . . A bus carrying 22 passengers crashed into side of a fire engine leaving its fire house in Paterson (N.J.)—three went to hospital—two of 'em firemen. Driver of bus fainted after crash. . . . Eng. 26, N.Y.F.D., returning from a fire, was just in time to see a collision between an automobile and a truck. The latter turned over, pinning the driver. Firemen quickly righted truck—but driver was dead. . . . When Yokum Washington, 39, a negro, primed with gin, decided to declaim publicly against the Jews, he picked a bad spot—corner of Pitt and Rivington Sts. in New York City's ghetto. When mob of 300 infuriated people went for him he pulled nearby fire alarm and it took "all hands" with their tools, and threat to turn water on the crowd, to rescue him. "Plastered" before he started, he awoke with a $100 plaster stuck on him by the judge. . . . Three year old twin daughters of medical director of the Albany (N.Y.) Hospital died as result of burns received from fire which broke out in absence of their parents, while they lay in their cribs. . . . Henry C. Winans, aged 90, Newark (N.J.) stood too close to gas stove while cooking supper; clothes ignited and he died. . . . A defective chimney caused fire at Monte St. Michel, near Montreal, which killed 50-year old mother and two daughters. . . . James Brannigan, New York City, 46, a WPA laborer, left lighted cigarette on the dresser. Resulting fire killed his son Martin, injured daughter, Dorothy, who was rescued by men of Truck 27. Father was badly burned in futile rescue effort. . . . Fire delayed the dedication of remodeled village hall in Sloan (N.Y.), near Buffalo, when the Mayor's auto caught fire while he was en route to ceremonies.

Note to contributors: If you do not read your news contribution in the next issue of FIRE ENGINEERING don't despair—if it's suitable it will ultimately find its way into print.

Editor, Watch Desk.

WHAT DO YOU KNOW?

The Editor of "The Watch Desk" welcomes contributions from readers of FIRE ENGINEERING that briefly give facts about interesting, odd things that have to do with fires, fire fighting, etc. Address "Editor, Watch Desk."

Panic on Fire Escape Hinders Rescues

Fire spread rapidly through an old-law tenement at 455 West 53rd Street, New York City, and as the screaming Spanish and negro tenants came rushing down the fire escape, with huge boxes of their belongings, the firemen had a difficult time.

Two Views of the Fire

Upper, excited tenants fleeing down the fire escape. Note the barrel at the right of the lowest platform. Lower, firemen look over the damage to the dumbwaiter shaft, which is still smoldering.

Several tenants ran back to bring down dogs or other belongings. One woman placed a wooden barrel on the escape and threw all her belongings into it. It may have been her intention to throw the barrel to the street.

All this panic on the fire escapes hindered the firemen in stretching in lines. Through a little strategy, the excited tenants were convinced that the danger was over and the smoke billows had disappeared. For a while, these people thought that everything they owned was going up in flames.

The account of the fire and the photographs were supplied by William Herries, who arrived in time to witness the rapidly moving events.

WHAT'S BURNING

THE following list includes fires of $50,000 loss and over in the United States and Canada, for the month of May, 1938. These figures, compiled from the telegraphic reports, are based on estimates made at the time, and are subject to later investigations and consequent revision. Taken as a whole, however, they are an approximately correct view of the losses incurred. The figures represent loss in thousands of dollars.

Month Ending May 31	Loss in Thousands of Dollars
Pasadena, Cal.—State Theatre damaged	50
Toledo, Ohio—Summit Street building occupied by A. & P. store	400
Los Angeles, Cal.—Spring Street business building damaged	50
Quebec, Que.—Furniture factory of A. Blondeau at Giffard, destroyed	50
Portland, Me.—Shed of Randall & McAllister Coal Co. damaged	400
South River, N. J.—Lumber yard of N. W. Clayton Co.	125
Northbrook, Ill.—Everglades Club, a roadhouse near here	50
Addison, Me.—Whitten theatre and adjoining business property	100
Massillon, Ohio—Lincoln Hotel and adjoining property	65
Erie, Pa.—Rainbow Gardens destroyed	90
Buffalo, N. Y.—W. T. Grant store damaged	50
Chicago, Ill.—One-story building at 538 West North Avenue	50
Roxana, Ill.—Plant of Shell Petroleum Co. damaged	425
Toledo, Ohio—Clapp Stove Co. building damaged	100
Peabody, Mass.—Property of American Hair and Felt Co.	125
Machias, Me.—Several business establishments	50
North Caldwell, N. J.—Pavillion of Mountain View Swimming Pool	80
Sacramento, Cal.—Top floor of Ochsner office building damaged	65
Santa Rosa, Cal.—Plant of Poultry Producers of Central California	200
Owensboro, Ky.—Warehouse of Henry O'Bryan estate destroyed	50
Hammond, Ind.—Plant of American Chemical Service Co. destroyed	50
Lancaster, Pa.—Clubhouse of Overlook Golf Club, Lititz Pike	50
N. Wildwood, N. J.—Chateau Monteray, a night club, destroyed	165
Mount Pleasant, Ohio—Gypsum Canning Co. plant destroyed	65
Danville, Va.—Tobacco and machinery warehouse destroyed	65
Westbrook, Me.—Drug store of Charles Vallee destroyed	50
Holyoke, Mass.—Mill property of Zeloid Products Co., and Downing & Downing	125
Grand Rapids, Mich.—Stiles, Inc., lumber yard finishing plant	80
St. Paul, Minn.—Plant of Waldorf Paper Products Co. destroyed	80
Leesburg, Fla.—Plant of Leesburg Grass Fiber Pulp & Paper Corp.	350
Los Angeles, Cal.—Property of Globe Bottling Co.	125
Opelousas, La.—Plant of Avie Bordelon Motor Co., adjoining property	60
Harlan, Ky.—Tipple and head house of Black Mountain Coal Corp., 12 miles east	125
Los Angeles, Cal.—Warehouse of Dearden Furniture Co.	80
West Roxbury, Mass.—Two ice houses of Highland Ice & Fuel Co.	80
Atlanta, Ga.—Terminal Hotel destroyed	80
Gridley, Cal.—Gridley Theatre and adjoining property	50
Newdale, Man.—Several business establishments	50
Summerville, S. C.—Salisbury Lumber Co. mill and brick plant	50
Cambridge, Mass.—Warehouse of Boston and Maine Transportation Co.	80
Weston, Mass.—Powerhouse of Massachusetts Broken Stone Co.	65
Brawley, Cal.—Three storerooms of Brawlay Ice Co. destroyed	50
Findlay, Ohio—Main building of Findlay College damaged	50
Sandy Run, Pa.—Coal breaker of Sandy Run Miners & Producers Co.	80
Newport, R. I.—Summer residence of Thos. J. Greene destroyed	125
Burlington, Vt.—S. S. Kresge Co. block destroyed	125
Stanstead, Que.—Main building of Stanstead Wesleyan College	80
Salamanca, N. Y.—Shops of Erie Railroad	110
Belle Center, Ohio—Business property	80

1 Killed by Vapor Blast

One man died a few hours after entering a hospital at Waterbury, Conn., and three others were severely burned in an explosion and fire which gutted the interior of a Cities Service gasoline station in that city recently.

Following an investigation made by Fire Marshal Dennis J. Lahey, it was indicated that the blast was due to leaking anti-freeze from the tap on a fifty gallon steel drum. An attempt had been made to fit a rubber gasket. All who suffered are believed to have breathed some of the flame which followed the blast so closely that before they were

Blast Damages Gasoline Station and Kills One Man

able to get through the station door, their clothing took fire.

Andrew Biondi, a visitor at the station at the time of the explosion, was blown through the door and when firemen answered an alarm from Box 14, East Main Street and Woolcott Road, his body was found several feet away from the station entrance.

THOMAS F. MAGNER.

4-Alarm Fire Strikes Philadelphia

A four-story upholstery plant located in the insurance section of Philadelphia, Pa., was destroyed in a four-alarm fire which attracted a large crowd of homeward-bound office workers. Sparks

Blaze Which Developed in Insurance Area of Philadelphia

ignited the roofs of two nearby buildings.

Flames were fed by drums of lacquer. Fire was discovered by a dog at 6:30 p.m. With the arrival of the first fire company, the other three alarms were turned in in rapid succession.

Hook-up to Hydrants

There are various methods for hooking up lines to hydrants. At Millburn, N. J., the department has been using a double and a single gate on hydrant outlets.

The first engine company arriving at a fire immediately stretches in a 2½-inch line from the hydrant to the fire.

The apparatus slows down at the hydrant to allow two men to jump off. One man with the hose, hydrant wrench, and spanner, makes a complete loop around the hydrant barrel with the hose, crossing the line on the ground. He places his foot on the hose so that it will not be pulled away from the hydrant when the apparatus starts laying the line.

The second man jumps off with a double gate and a single gate. The two gates are placed on the two 2½-inch outlets of the hydrant. Water is turned on. The hose is made fast to one of the outlets of the double gate.

This leaves two 2½-inch gate outlets for the pump to hook up to when it returns to the hydrant after stretching out the hose. The two sections of hard suction are used to connect the pumper to the hydrant.

This makes the hydrant always ready for the pump hookup. Water is soon available, if needed.

If the fire has reached the stage where a big line is needed, it can be obtained by opening the gate, and the pump still can be hooked to the other gates without turning off the hydrant.

Should a second line be needed, the hose company would stretch this line, connecting to the pump. Water is put through this line with the pump working. If pressure is wanted on the first line, it is transferred from the hydrant to the pump. With this plan, there is water on the fire at all times.

After the pump is connected to the hydrant, the two men who connected the gates, proceed to the fire, leaving the driver to operate the pump.

It has been our practice to stretch a line from the first engine company at every fire. When the booster can be used to extinguish the fire, no water is called for through the 2½-inch line, except when it is used to take the place of the booster tank, after the tank has been emptied.

The hose company only stretches the second line when the fire has reached such size that it may be needed. If no 2½-inch line is needed from the hose company, the company proceeds to the fire and if it is not needed, the company returns to quarters.

This method of using a hydrant has proven very helpful to a department, where long and short lines are commonly used.

HENRY F. BUCHHOLZ,
Fire Department, Millburn, N. J.

Chief Mosbaugh Honored

Two hundred friends of Chief E. H. Mosbaugh, Riverside, Cal., honored him with a surprise banquet at the American Legion clubhouse, recently, to mark his fifty years of fire fighting. He was brought to the hall by the Mayor. He was still attired in his fishing togs, for he had been taken on a pre-arranged fishing trip.

Jay Stevens, State Fire Marshal, was master of ceremonies. Chief Mosbaugh was presented with a diamond studded Chief's badge in the form of a watch fob, and the ladies auxiliary presented a handsome blanket. Present at the dinner were old friends from Santa Ana and Redlands, where he had served as Chief for twelve years.

In 1919, Mosbaugh went to Riverside, and he was appointed Chief in 1930.

Telegrams of congratulations were sent by Fire Department officials and those in the fire prevention field, from various parts of the United States.

Stockwell Heads New Mexico Firemen

Chief Ira J. Stockwell, Carlsbad, N. M., was elected President of the New Mexico Firemen's Association at its convention held at Carlsbad, May 16 to 18.

The other officers are Chief J. A. Richards, Artesia, First Vice-President; Chief Carl Ehrick, Las Vegas, Second Vice-President; Theodore Rosenwald, Albuquerque (re-elected), Secretary-Treasurer.

A total of 140 registered for the ninth fire college and sixteenth annual convention. A lecture on fire control was given by Chief Alva Simpson. Chief Fred A. Taylor, Colorado Springs, spoke on the training of firemen. Chief T. P. Treadwell, Fort Collins, spoke on booster tanks and small lines. A talk on "Fire Streams in Miniature," was given by Chief Harry K. Rogers.

The high spot of the gathering was an evening demonstration for the public at a specially constructed drill tower. Demonstration of department evolutions was made by members of the Carlsbad Fire Department.

Fire Pumpers Demonstrated

A demonstration of motor pumping units, ranging in size from an Ahrens-Fox motor pumper of 1,000 gallons per minute capacity to small portable forest fire pumps, was held at the mill pond in Hopedale, Mass., on May 17, in connection with the meeting of the Blackstone Valley Foresters' Association. There was a large attendance of Fire Chiefs and Forest Wardens.

The forest fire pumps in action were the Fitz-Henry Guptil type used by the Massachusetts Department of Conservation, and the Pacific portable pump. Three state trucks, the unit from Oxford, the "brush breaker" truck from the Myles Standish State Forest, and the Plymouth patrol car, were on view, as well as apparatus from Hopedale, Upton, Uxbridge, Northbridge, Hopkinton, Milford, and Westborough.

Maxwell C. Hutchins, State Fire Warden; Assistant Warden John P. Crowe; Charles L. Woodman, District Fire Warden, and Superintendent Charles Cherry, of the Myles Standish Forest, were present. Chief Samuel Kellogg, of the Hopedale Fire Department, acted as host.

HARRY BELKNAP.

Chief Woods, Portsmouth, Dead

Chief William F. Woods, of the Portsmouth, N. H., Fire Department, died suddenly on April 28. He was seized with a fatal heart attack while out in a boat fishing on Lake Winnepesaukee. He suffered a light heart attack about a year ago.

Funeral services were held on Sunday afternoon, May 1, in the First Unitarian Church, Portsmouth. More than one hundred Chiefs attended, with representatives present from New Hampshire, Maine, and Massachusetts. A large detail of Portsmouth firemen acted as funeral escort and in the cortege there were two motor pumping engines loaded with flowers. The services were conducted by Rev. Mr. Jones, pastor of the church. The crowded edifice testified to the high esteem in which the deceased was held. There was a delegation present from the American Legion and representatives of all branches of the municipal government as well as scores of friends, relatives, and associates.

Chief Woods is survived by his widow, three brothers, and two sisters. He was a member of the New Hampshire Fire Chiefs' Club and many other organizations.

HARRY BELKNAP.

OFFICER KILLED IN 3-ALARM FIRE OF LARGE STABLE IN NEW YORK CITY

Collapse of Brick Wall Buries Lieutenant and a Number of Firemen — Heavy Streams Ordered to Break Up Stubborn Blaze

THREE alarms were turned in for a fire which broke out in a stable in the east side section of New York City.

The fire spread so rapidly that, when the commanding officer of the first alarm response arrived, he ordered a second alarm turned in. The Lieutenant and one of the men seriously injured were on the roof of the two-story brick structure trying to chop holes in the roof for ventilation. The wall fell and the men were hurled into a courtyard and buried under bricks.

General View of the Stable Fire, Showing the Ell-Shaped Building

Arrows show firemen working on the wall that collapsed and which caused the death of Lieut. Meehan. He is at the top of the ladder. Wagons were stored in the courtyard.

Lieutenant Thomas Meehan, relief officer of Engine Company 9, was killed and three other firemen were badly injured. In the blaze, 121 horses were burned to death. Spontaneous combustion in the hay stored in the stable is believed to have been the cause of the fire.

The fire brought Assistant Chief O'Hanlon speeding from the Rockaways. He turned in a third alarm and ordered two searchlight trucks to illuminate the debris, where for a time it was thought other firemen had been buried. Crews of policeman also helped in searching the ruins.

Also present at the blaze was Commissioner McElligott. The fire proved to be so stubborn that he ordered the pressure on the large lines increased and the walls battered.

The fire had started at 5:10 p. m., and it was not unil 3½ hours later that it was considered to be under control.

According to an investigation made by Thomas E. Brophy, there was no explosion, nor were any dangerous gases present.

The stable was ell-shaped, with the legs forty and seventy foot long. More than one hundred wagons were stored in an open front courtyard, formed by the ell.

Ex-Chief Purroy, New York, Dead

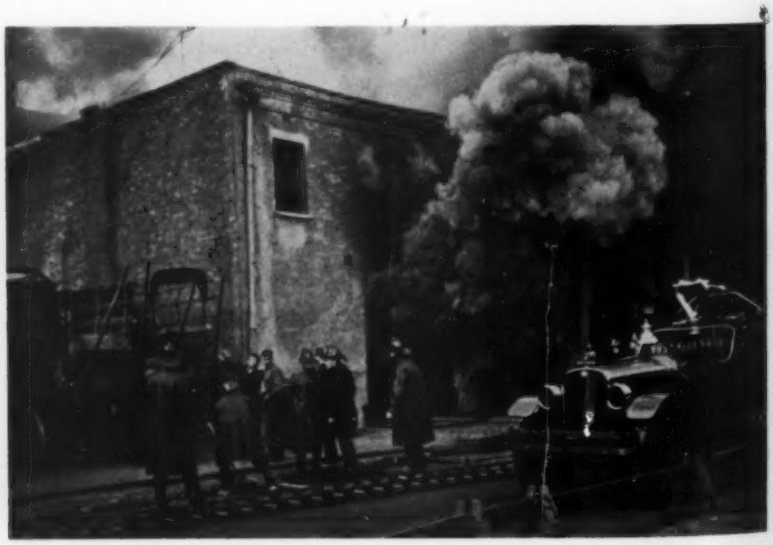
Charles D. Purroy, one time Chief of the New York Fire Department, and an uncle of the late John Purroy Mitchel, Fusion Mayor of New York City twenty-five years ago, died at Miami, Fla., at the age of eighty-three.

He was a brother of the late Henry D. Purroy, a political power in the days of the old County Democracy, when it fought the Croker rule in Tammany Hall.

He was appointed a firemen on January 22, 1880. Purroy was advanced to Assistant Foreman in sixteen months, Foreman eighteen months later, a Battalion Chief in another eighteen months, and a Deputy Chief nine years afterward.

When Fire Commissioner Sturgis made charges against Chief Edward F. Croker, a nephew of the Tammany chieftan, and then had him dismissed, Purroy was appointed Chief. However, four months later Croker, who had won a court fight for his job, was reappointed. Chief Purroy retired as head of the department on December 1, 1903.

Lieut. Meehan Taken from the Ruins



Dense Smoke Issuing from Stable

He left New York City to reside at Eatontown, N. J. He spent his winters in Florida.

Five years ago his sister died and he inherited a life interest in a $73,706 estate. It was provided that upon the death of Chief Purroy, the principal was to go to Columbia University for the establishment of a John Purroy Mitchel Memorial Fund to aid young men of American birth who are trying to work their way through college.

He is survived by his widow.

Fire Protection for Summer Population

Nahant is located four miles out to sea, in Essex County, Mass. Connected with Lynn by a causeway. The area is only one mile square, but because of the geographical location, fire protection problems are unique. The official population is 1,654, but during the Summer months there are approximately 7,000 people living in the town.

The appropriation for Fire Department activities is made annually in March of each year. Equipment consists of a triple combination, two auto combinations, 4,800 feet of 2½-inch hose, a ladder truck, 1,200 feet of 1½-inch hose, fifteen extinguishers, one forest fire pump, inhalator, and about everything necessary for the proper functioning of a modern department. This year Nahant hopes to have all of its motor apparatus equipped with booster pumps. Only one remains to be so equipped.

The personnel consists of a Chief, two assistants, five permanent men, twenty-one call men, and fifteen volunteers.

There are 148 hydrants with an average pressure from sixty-five to eighty-five pounds. The fire alarm system is of Gamewell make. During the past year, a floating battery system was installed, which has added greatly to the dependability of the fire alarm.

The permanent firemen receive seventeen days' vacation, in addition to one day off in three.

The town's fire loss has been negligible. This has been due, in no small part, to the elimination of fire menaces as soon as they come to the department's attention.

Charles F. Leavitt is Chief of Fire Department.

Compensation for Firemen

Plans were completed at Charlotte, N. C., on May 24 at a meeting of state fire, county and municipal organizations with regard to compensation for firemen serving outside their tax-supported governmental units.

A committee was appointed to present a program to the 1939 General Assembly of the state. Those to serve on this committee, which was named by Jerome B. Flora, Elizabeth City, N. C., President of the State Firemen's Association, include:

Chief Hendrix Palmer, Charlotte; State Fire Marshal Sherwood Brockwell, John L. Miller, Frank W. Bennett, Durham; H. L. Burdette, Monroe, and Chairman Henry W. Harkey, Mecklenburg County Board of Commissioners.

The Attorney General of North Carolina has ruled that firemen hurt in answering calls outside of the city limits are not eligible for compensation. City firemen are continually being called upon to go outside the city to fight fires, and the danger of this kind of work has made it vitally important that something be done to protect these men.

What program the committee will propose and present to the next general assembly of the State of North Carolina will not be known for some time, as they will carefully frame the measure they desire enacted.

D. G. Spencer.

All Enclosed City Service Truck

It was a gala day on May 10 for Waterloo, Ia. On that day about fifty Chiefs and city officials from sixteen neighboring cities assembled to view the newest fire apparatus unit, designed and constructed under the direction of Chief Ray Tiller, by the American-LaFrance and Foamite Industries, Elmira, N. Y.

In brief, the all-enclosed city service truck has a wheel base of 265 inches; an overall length of 33 feet, 7 inches; height at the cab, 95 inches; width at the rear fenders, 95 inches. The truck has a 12-cylinder motor delivering 175 h.p., at 3,200 r.p.m.

The cab and body are 68 inches wide, exclusive of compartments on each side of the truck, extending from the rear of the cab to the rear of the unit. All small tools, such as extinguishers, and the various hand tools, including some salvage covers, are carried in these compartments. There are two seats across the full width of the inside of the cab. There is a water tank of 85 gallons under the rear seat. The truck has a 100 g.p.m., rotary gear pump operated from the motor by a power takeoff.

It carries 262 feet of ladders housed in an overall length of twenty feet. Ladders, pike poles and life net are accessible from the rear by opening a two-piece door which hinges upward.

The truck carries the usual complement of small tools and appliances, extinguishers, and has space for 1,000 feet of 2½-inch hose.

Squad Wagon Urged for Camden

A recommendation has been made that a squad car be provided for Camden, N. J. Advocates of the plan believe that one of the police squad wagons could be converted into a rescue car without much difficulty.

At present there are twenty trained men who are versed in rescue work. The squad is being increased to a personnel of fifty, under command of Senior Captain William Van Pfefferle.

The equipment carried by the squad includes a 14-foot collapsible row boat and grappling irons used in drownings; an inhalator, oxygen and carbon dioxide tanks, and a complete doctor's emergency kit.

Views of the New Type City Service Truck

Upper, back of truck showing rear door and how ladders are carried. Lower, side view of the apparatus.

Marks 143rd Anniversary

The Endeavor Fire Company, Burlington, N. J., which claims to be the oldest company in the state, marked its 143rd anniversary.

ROTATING DRUMS IN BASEMENT USED FOR DRYING WET FIRE HOSE

Installation in Wilmington, Del., Fire Hose Designed by Director of Public Safety of City — Invention Patented

A NEW method for drying fire hose has been developed by George L. Coppage, Director of Public Safety, Wilmington, Del., and Assistant Works Manager of the Pusey & Jones shipyard, located in that city. Patents have been granted.

A hose dryer of this type was placed in service in Fire Station No. 1, Wilmington. It consists of two drums, eight feet in diameter by eleven feet long, placed in the basement. These drums can care for five hundred feet of wet hose or one thousand feet of dry hose on each reel.

The control for the drums is on the apparatus floor. There is a trap door or slot on this floor through which hose can be fed to the basement. The drums are turned by a 1.5 h.p. motor with four speed controls. The speed of rotation can be controled by a fireman.

Air is drawn from the outside of the building, is heated to the desired temperature, and is then forced to the drums through ducts. There are three ducts on the outside and one on the inside of the drum. A unit controls the humidity, and a thermostat regulates the heating of the air.

The air conditioned room housing the drums in the basement, is also used to dry tarpaulins, cloths, etc., on racks.

Air that is drawn in from the outside of the building is passed over a steam coil which is heated by an oil burning steam boiler that heats the main building.

Chief Wiliam J. Lutz presents a comparison of hose drying by this method and the use of towers.

With towers, it requires eleven minutes to move five hundred feet of 2½-inch cotton rubber lined hose from the apparatus and place it in the tower; fourteen minutes to place this amount of hose from the tower back on the apparatus. This makes a total of twenty-five minutes.

With the drum dryer, five hundred feet of hose was taken from the apparatus and placed on the drum in six minutes and ten seconds. This same hose was taken from the dryer and placed on the apparatus in four minutes and fifty-eight seconds. This makes a total of eleven minutes and eight seconds, and shows a saving of thirteen minutes and fifty-two seconds over the older method.

Chief Lutz also stated that with the hose suspended in towers, there is an added strain placed on the couplings.

Lowering Hose to Drums in Basement

Dominion Chiefs Meet in July

Arrangements are being made for the thirtieth annual convention of the Dominion Association of Fire Chiefs, which will be held at Sault Ste Marie, Ont., July 25 to 27. Chief W. J. Phillips is the convention host. Chief W. A. Spalding, Preston, Ont., is Chairman of the Exhibit Committee.

Jim Treacy Succeeds Brother

James J. Treacy, succeeds his brother, Hubert J. Treacy, who retired on pension on April 17, as Supervisor of the Bureau of Fire Department Buildings, and holds the title, Inspector-in-Charge.

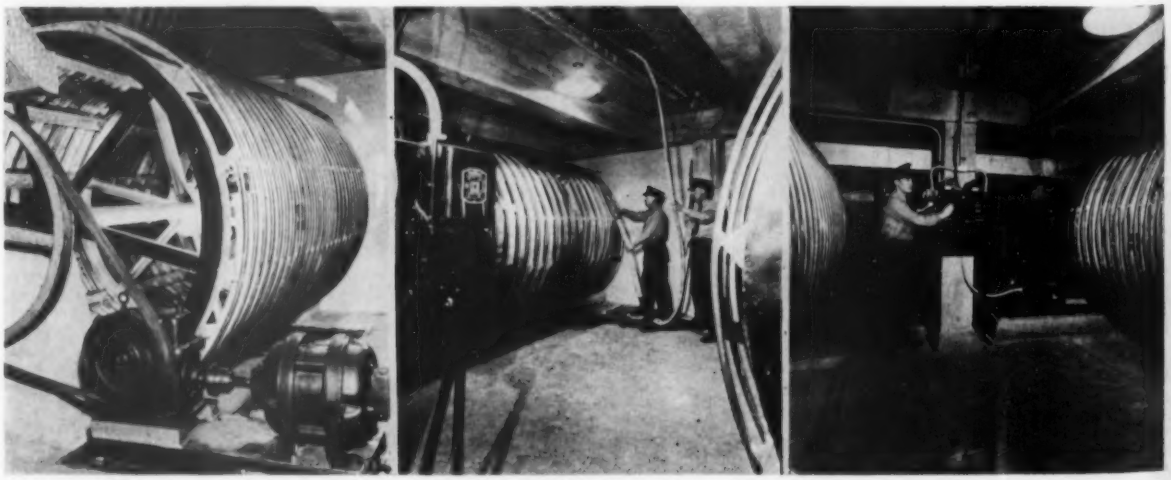
H. J. Treacy was formerly Chief of the Bureau of Repairs and Supplies, and was later placed in charge of department buildings. He was with the department for thirty-eight years.

James J. Treacy has had much architectural experience and is responsible for the current standard design and specifications for New York fire stations constructed during the past fifteen years.

Chief Kennedy in Air Crash

Chief Fred Kennedy, of Indianapolis, and three others were in an airplane crash which was described as "one in a million," and are still able to tell about it.

After a four-day visit to Miami, Fla., they were returning in a Stinson four-seater plane when it crashed on a farm near Nashville. The plane had run out of gas. The ship cut trees and came to a halt with its tail hanging over a fence. Just to prove that such a thing meant nothing to them, the men boarded an Eastern Airline plane and continued their trip.



Three Views of Drums in Air Conditioned Room in Basement, and the Motor for Rotating the Reels

THIS IS THE **BONUS** SEASON

For Homelite Portable Floodlighting

The "off" season for fires is still the "on" season for Homelite Portable Floodlight. In addition to fighting night fires, fire departments are using this handy unit more and more for other emergencies. And men in charge of local purse strings are quick to see that this low cost, completely portable equipment pays out substantial dividends during summer months.

Use it for drownings—Homelite Portable Floodlights help rescuers—make it easier to recover bodies before they are hopelessly lost.

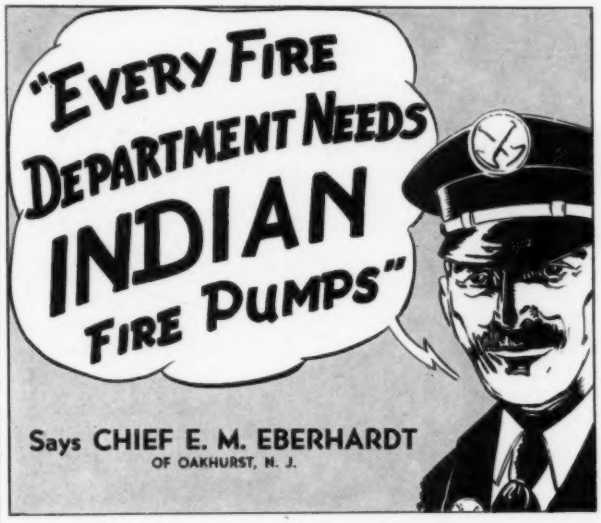
Use it for accidents—Adequate floodlighting insures care in extricating injured persons. It sometimes saves lives. It facilitates removal of wreckage and cleaning up work.

Use it when lightning strikes—when bolts tear down trees, poles, wires, and put lights out of commission. Have a Homelite ready for work.

And always use it for night fires

With the Homelite on your truck's running board, you're always sure of brilliant floodlighting at all night fires. Although small and compact—only 89 pounds complete with built-in engine—it generates 1250 watts, enough for several floodlamps. You set it up anywhere. No long cables necessary. It is rugged—dependable under every condition. Thousands are in use. Write for new bulletin.

HOMELITE CORPORATION
806 RIVERDALE AVE. PORT CHESTER, N. Y., U. S. A.



Read this Letter from Chief Eberhardt

The INDIANS have not only been particularly valuable in thick brush fires, but also in numerous small house fires. We find they do a much cleaner job, and are easier to transport than the 2½-gallon soda and acid extinguisher. We are very satisfied with our INDIANS and believe that every Fire Department should have them as part of their standard equipment.

G. M. Eberhardt, Oakhurst Ind. Hose Co.
Oakhurst, N. J.

NEARLY half the fires in an average small city are roof, stove, small room, spot, grass and brush fires, all of which can be handled quickly and efficiently with INDIAN Fire Pumps filled with CLEAR WATER. You can easily see then, why hundreds of Fire Chiefs have installed INDIANS as the *back bone* of their Fire Fighting equipment.

Truck Carrying Rack

Carrying rack of unbreakable malleable iron which bolts to running board or floor of truck makes outfit complete. Straps hold pump in place. Heavy, black japanned buckle instantly locked or unfastened.

Top view shows INDIANS being used to put out roof fire. The fact that the INDIAN straps on the back leaving arms free for climbing ladders makes it especially valuable on work of this kind. Center; making short work of grass fire with INDIAN pumps. At bottom: INDIANS in rack at Long Lake, N. Y., fire house.

SEND FOR CATALOG

D. B. SMITH & CO., 406 MAIN ST., UTICA, N. Y.

Pacific Coast Agents:
HERCULES EQUIPMENT & RUBBER CO. 550 Third St., San Francisco, Calif.
PACIFIC MARINE SUPPLY CO. 1217 Western Ave., Seattle, Wash.
WESTERN LOGGER'S MACHINERY CO., 302 SW. 4th St., Portland, Oregon
Canadian Agents: H. K. MARTIN CO., Board of Trade Bldg., Montreal, Can.

THE lightest weight fire hose made and you can bet fire chiefs and their men appreciate that when carrying LIN-LINED up high ladders.

LIN-LINED is tough enough to stand the hardest usage and it will not mildew under any condition.

Every fire department needs some LIN-LINED Hose. why not order some today?

AMERICAN FIRE HOSE COMPANY
South and Sixth Streets, Passaic, N. J.

Specify FEDERAL
ON YOUR NEW APPARATUS

"C-5" COASTER SIREN

A streamlined coaster siren with a flashing light.
SOUND: A new compelling roar heard about traffic noises.
LIGHT: Flashing on and off, warns motorists and pedestrians.
ECONOMY: Coasts for 120 seconds after current is shut off.
ELECTRIC BRAKE: Stopped instantly by simple touch of button.
Price: $100.00 with brake and light. Write for bulletin No. 56.

FEDERAL ELECTRIC CO.
8702 SOUTH STATE STREET CHICAGO ILLINOIS

Shuredry SALVAGE COVERS

Reduce WATER DAMAGE & INSURANCE RATES

PROGRESSIVE Fire Chiefs everywhere recognize the necessity of improved salvage work if they are to better their records. **Shuredry Salvage Covers** have been used to illustrate salvage talks by leading Fire Chiefs at many conventions. They have been recommended by these practical men in service for dependability, efficiency and real economy to the department. Easy to handle and to spread, they will not crack when folded or stored. They do not sweat and are chemically treated against mildew.

Write for samples and prices.

Fulton Bag & Cotton Mills
Manufacturers Since 1870
ATLANTA ST. LOUIS DALLAS
MINNEAPOLIS NEW YORK NEW ORLEANS KANSAS CITY, MO.

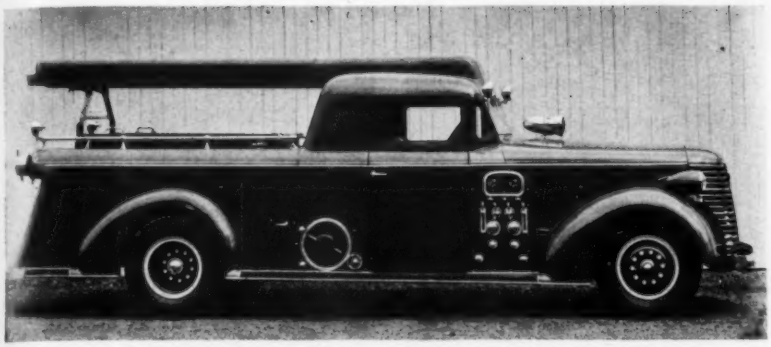
FREE TO FIRE CHIEFS

Fire chiefs who are seeking increased appropriations for more fire alarm boxes or fire fighting equipment may help their cause by furnishing the Mayor of their city a copy of

"INFLATION AND FIRE CHIEFS"

by ROGER W. BABSON as it appeared in FIRE ENGINEERING for February, 1937. Copies will be sent free to any chief who writes:

BABSON'S STATISTICAL ORGANIZATION, INC.
By ROGER W. BABSON, *President*
Babson Park, Mass.



American-LaFrance Streamlined Pumper

AMERICAN-LAFRANCE AND FOAMITE INTRODUCES STREAMLINED PUMPER

New Machine Includes Many Novel Features, and Expresses a New Idea in Motor Apparatus Design

THE American - LaFrance - Foamite Corporation, of Elmira, N. Y., has just developed a highly attractive, streamlined pumper, in which many novel features are incorporated. The new truck is illustrated herewith.

The cab, of sturdy construction and seating five men, is built of sheet steel, reinforced with steel ribbing. Safety glass throughout is provided.

Streamlined Holder for Extension Ladder

To eliminate the undesirable feature of having the extension ladder supported on the side of the truck, and overhanging at the rear, a streamlined holder is placed over the body of the truck, and extends into the upper part of the cab. By this method of mounting, the ladder does not project beyond the body of the truck.

Receptacles are provided for suction hose at either side of body and only one coupling of either section shows when hose is in the receptacle.

The operating panel is placed on the right-hand side of the truck, just ahead of the cab. All instruments and operating controls are located on this panel so that the operator can, at all times, maintain complete supervision of all phases of operation. As the control equipment is located beneath the cowl, just back of the engine, danger of freeze-up, even during the coldest weather, is eliminated.

A two-stage centrifugal pump is standard equipment for this new machine, which is known as the "Metropolitan." Pump stages can be operated either in series or parallel, and a simple, easily manipulated change-over valve enables the operator to make the change without shutting down the pump.

Within the pump, a hinged check valve, used for series operation of pump, is suspended near the top of the pump, and its seat is scoured by flow of water, which insures seating at all times, as well as a tight fit.

As the illustration herewith shows, the complete unit presents a very attractive appearance, in addition to the many conveniences in operation made possible by the novel design.

Uses Outside Protection Fund for Equipment

(*Continued from page 236*)

premises and shall notify the Chief of the Fire Department of said assignment.

"No person shall be accepted as a donor to said fund unless his property in the opinion of the Chief of the Fire Department shall be so located as to be accessible for the fire trucks, and in no event shall it be at a greater distance than five miles from the corporate limits of said city.

"Any person owning real estate without said city limits, as aforesaid and desiring the use of the Fire Department as provided for in this ordinance may come within the provisions of this ordinance, subject to the provisions of section 40, by paying into the Fire Department Fund the sum of Fifty Dollars for each premises owned by him. The City Clerk shall thereupon give him a receipt and shall notify the Chief of the Fire Department of such payment and the location of said premises.

"No person shall be permitted to procure fire protection hereunder for any less than Fifty Dollars for each of the premises owned by him, and the duty upon the part of the city to furnish protection hereunder shall cease at the end of five years from the time of the compliance with the terms of this ordinance. Provided also: The city shall have the right to cancel this obligation at any time by refunding the proportionate part of the premium paid for the unexpired term. At the expiration of said five year term the City Council may by resolution if it so desires extend the period of said protection for a period not to exceed five years to such persons upon the payment of a fee of Fifty Dollars each.

"All funds arising under this ordinance shall be used solely to repair the present equipment and to purchase additional equipment."

Manufacturers' Announcements

Pirsch Ladder for Trenton

A Pirsch 100-foot aerial ladder was sold by the New Jersey Fire Equipment Company, Dunellen, N. J., to Trenton, N. J. The truck will have a 100-foot duralumin ladder.

Death to Any Fire

"Instant Death to Any Fire," a four-page illustrated folder, has been issued by the Walter Kidde Company, 140 Cedar Street, New York City. It describes the Lux extinguishers from the two-pound to the 100-pound wheeled equipment.

Portable Floodlighting

An eight-page illustrated folder on "Portable Floodlighting," has been issued by the Homelite Corporation, Port Chester, N. Y. It shows photographs of the equipment being carried on fire apparatus, and gives testimonials of some of the satisfied Chiefs.

Richardson, General Sales Manager

William S. Richardson, Merchandising Manager of the B. F. Goodrich Company, mechanical goods division, has been named General Sales Manager of the same division. He succeeds C. E. Cook, who died on April 16. Mr. Richardson joined the Goodrich organization in 1926. L. H. Cenoweth becomes Merchandising Manager.

New Type Siren

The H. O. R. Company, Inc., Staten Island, N. Y., has developed a mechanical type if siren requiring no friction point or electric power to operate. The siren volume automatically increases with the speed of the apparatus. The siren is made in three sizes, and the company's Engineering Department will suggest the size most suitable for each individual traffic problem.

Staniford Heads Mack-International

At a meeting of the Board of Directors of Mack Trucks, Inc., F. F. Staniford was elected President of the company's subsidiary, Mack-International Motor Truck Corporation. Mr. Staniford also was elected vice-president of the parent company. In his new capacity he will have charge of all sales activities.

Mr. Staniford started with Mack, in 1911, as a member of the sales force. He has been successively Manager of the company's Albany branch, and Vice-President in charge of its Northeastern Division, with headquarters at Albany, N. Y. He succeeds the late W. R. Edson, who passed away on April 14.

CLASSIFIED ADVERTISING

Bids Wanted, For Sale and Help Wanted $5 per inch. Position Wanted, $2.50 per inch.

Wanted

Fire Apparatus Salesman to sell well known make of apparatus and equipment in New York State. State experience and salary desired. Our Salesmen know of this ad. Address: Box No. 45, c/o FIRE ENGINEERING, 24 W. 40th St., New York, N. Y.

CONVENTION DATES

June 10-14—NEVADA STATE FIREMEN'S ASSOCIATION. Annual Convention, Elko, Nev. Secretary, E. R. Simons, Sparks, Nev.

June 13—LITCHFIELD COUNTY FIRE CHIEFS' EMERGENCY PLAN. Next Meeting, Canaan, Conn. Secretary, Captain Wesley Billings, Thomaston, Conn.

June 13-15—MINNESOTA STATE FIRE DEPARTMENT ASSOCIATION. 66th Annual Convention, Wadena, Minn. Secretary, Fred Pfaender, New Ulm, Minn.

*June 14—NEW HAVEN COUNTY FIRE CHIEFS' EMERGENCY PLAN. Next Meeting and Dinner Dance, Waverley Inn, Cheshire, Conn. Secretary, Chief John Pachl, New Haven Annex Fire Department.

June 14-15—NORTH DAKOTA FIREMEN'S ASSOCIATION. 54th Annual Convention, Harvey, N. D. Secretary, H. R. Handtmann, Fargo, N. D.

June 14-17—FIRE COLLEGE OF ILLINOIS. 14th Annual College, University of Illinois, Urbana. Director, L. H. Provine, University of Illinois.

June 15—NORTHWESTERN OHIO VOLUNTEER FIREMEN'S ASSOCIATION. 65th Annual Convention, Napoleon, Ohio. Secretary, J. W. Gardner, Ashland, Ohio.

*June 15—FIRE CHIEFS' EMERGENCY PLAN, Westchester County. Next Meeing, Hartsdale, N. Y. Secretary, Captain Howard Geer, Fire Headquarters, Rye, N. Y.

June 15-17—MARYLAND STATE FIREMEN'S ASSOCIATION. 46th Annual Convention, Baltimore, Md. Secretary, George R. Lindsay, Hagerstown, Md.

June 15-18—WASHINGTON STATE FIRE CHIEFS' ASSOCIATION, STATE FIREMEN'S ASSOCIATION and STATE FIRE SCHOOL. Chiefs' 6th and Firemen's 16th Annual Convention and 8th Annual Fire School, Wenatchee, Wash. Secretary, Chiefs, W. A. Groce, 716 Mohawk Bldg., Spokane; Secretary, Firemen, Hugh M. Leslie, Auburn, Wash.

June 16-18—EASTERN ASSOCIATION OF FIRE CHIEFS. 11th Annual Convention, Baltimore, Md. Secretary, Chief Charles E. Clark, P. O. Box 217, Wayne, Pa.

June 18—NASSAU COUNTY FIREMEN'S ASSOCIATION. 32nd Annual Parade and Tournament, West Hempstead, L. I., N. Y. Secretary, James McInnes, Jr., Syosset, L. I., N. Y.

June 19-25—ALLEGHENY COUNTY VOLUNTEER FIREMEN'S ASSOCIATION. 24th Annual Convention, Verona, Pa. Parade date, June 25. Secretary, A. H. Leck, 1009 Third Street, McKees Rocks, Pa.

June 20-23—MICHIGAN STATE FIREMEN'S ASSOCIATION. 64th Annual Convention and 10th Annual Fire College, Saulte Sainte Marie, Mich. Secretary-Treasurer, George M. Low, Bangor, Mich.

June 21-22—MISSOURI VALLEY ASSOCIATION OF FIRE CHIEFS. 4th Annual Convention. Boulder, Col. Secretary-Treasurer, Chief Ray Tiller, Waterloo, Iowa.

June 21-23—NEW ENGLAND ASSOCIATION OF FIRE CHIEFS. 16th Annual Convention, Hotel Vermont (Exhibits, Municipal Auditorium), Burlington, Vt. Secretary-Treasurer, Chief John W. O'Hearn, Watertown, Mass.

June 22-25—HUDSON VALLEY VOLUNTEER FIREMEN'S ASSOCIATION. 49th Annual Convention, Hudson, N. Y. Secretary, Chief Chris W. Noll, Poughkeepsie, N. Y.

*June 29—FAIRFIELD COUNTY FIRE CHIEFS' EMERGENCY PLAN. Next Meeting, Redding, Conn. Secretary, Captain John Moehring, Toms Road, Stamford, Conn.

July—WEST VIRGINIA FIRE CHIEFS' ASSOCIATION. 7th Annual Convention, Morgantown, W. Va. (Exact date to be decided later.) Secretary-Treasurer, Roy B. Lister, Nutter Fort, W. Va.

*July 6-7—OHIO REGIONAL FIRE SCHOOL, 5th Annual School and 3rd Ohio Fire Exposition, Youngstown, Ohio. Director, Frank Vernotzy, First Asst. Chief, Akron, Ohio.

*July 11—LITCHFIELD COUNTY FIRE CHIEFS' EMERGENCY PLAN. Next meeting, Terryville, Conn. Secretary, Captain Wesley Billings, Thomaston, Conn.

July 11-13—WISCONSIN STATE FIRE CHIEFS' ASSOCIATION. 10th Annual Convention, Maniwotoc, Wis. Secretary, Chief A. V. Simon, Ladysmith, Wis.

*July 12-13—MARITIME FIRE CHIEFS' ASSOCIATION. 24th Annual Convention, Sydney, N. S. Secretary, G. P. Ryder, St. Stephen, N. B.

July 14-16—TEXAS FIRE DEPARTMENT INSTRUCTORS' CONFERENCE. Annual Conference, Texas A. & M. College, College Station, Tex. Director, H. R. Brayton, Box 119, College Station.

*July 18-21—FLORIDA STATE FIRE COLLEGE. 9th Annual College, Daytona Beach, Fla. Secretary, F. C. Pfaender, Florida State Hospital, Chattahooche, Fla.

July 18-22—TEXAS FIREMEN'S TRAINING SCHOOL. 9th Annual School, Texas A. & M. College, College Station, Tex. Director, H. R. Brayton, Box 119, College Station.

*July 20-23—COLORADO STATE FIREMEN'S ASSOCIATION. 27th Annual Convention, Fire College and Tournament, Brighton, Col. Secretary, Clinton Turnbull, 215 Boston Bldg., Denver, Col.

*July 25-27—DOMINION ASSOCIATION OF FIRE CHIEFS. 30th Annual Convention, Saulte St. Marie, Ont. Secretary, Chief James Armstrong, Kingston, Ont.

Aug. 2-4—WISCONSIN PAID FIREMEN'S ASSOCIATION. 31st Annual Convention, Eau Claire, Wis. Secretary-Treasurer, George Johnson, 1609 West Boulevard, Racine, Wis.

Aug. 8-11—NORTH CAROLINA STATE FIREMEN'S ASSOCIATION. 51st Annual Convention, New Bern, N. C. Secretary, John Miller, Concord, N. C.

Aug. 9-12—PROVINCE OF QUEBEC POLICE AND FIRE CHIEFS' ASSOCIATION. 6th Annual Convention, Sherbrooke, Que. Hon. Secretary-Treasurer, Chief Robert Harrington, Fire Dept., McColl-Frontenac Oil Co., Ltd., Suite 8, Hotel Windsor, Montreal, Que.

Aug. 9-10—VIRGINIA FIRE CHIEFS' ASSOCIATION. 10th Annual Convention, Luray, Va. Secretary-Treasurer, E. H. Rouse, Orange, Va.

Aug. 9-11—MICHIGAN STATE FIRE CHIEFS' ASSOCIATION. 13th Annual Convention, Occidental Hotel, Muskegon, Mich. Secretary, George F. Dansbury, Grosse Point Farms, Mich.

Aug. 9-12—VIRGINIA STATE FIREMEN'S ASSOCIATION. 52nd Annual Convention, Luray, Va. Secretary, O. W. Dabney, Staunton, Va.

*Aug. 16.—VERMONT STATE FIREMEN'S ASSOCIATION. 49th Annual Convention, Poultney Hotel, Poultney, Vt. Secretary-Treasurer, W. R. Adams, Vergennes, Vt.

Aug. 16-19—FIREMEN'S ASSOCIATION OF THE STATE OF NEW YORK. 66th Annual Convention, Saranac Lake, N. Y. Secretary, Fred A. Davis, Fort Edward, N. Y.

*Aug. 17-19—INDIANA FIREMEN'S ASSOCIATION. 22nd Annual Convention, New Albany, Ind. Secretary, Arnold Meister, Fire Headquarters, Anderson, Ind.

Aug. 19-20—CONNECTICUT STATE FIREMEN'S ASSOCIATION. 55th Annual Convention, Milford, Conn. Secretary, D. W. Harford, 10 Chestnut Street, South Norwalk, Conn.

Aug. 25-27—NORTHERN PENNSYLVANIA FIREMEN'S ASSOCIATION. Annual Convention, New Castle, Pa. Secretary, Paul J. P. Donley, Sharon, Pa.

Aug. 29-Sept. 3—INTERNATIONAL ASSOCIATION OF FIRE FIGHTERS. 14th Annual Convention. Atlanta-Biltmore Hotel, Atlanta, Ga. Secretary-Treasurer, George J. Richardson, A. F. of L. Bldg., Washington, D. C.

Sept. 6-8—MARYLAND STATE FIRE SCHOOL and FIRE CHIEFS' CLUB OF MARYLAND. State Fire School and Meeting of Club, University of Maryland, College Park, Md. Director, Prof. R. B. Criswell, University.

Sept. 7-8—DELAWARE VOLUNTEER FIREMEN'S ASSOCIATION. 18th Annual Convention, Newark, Del. Secretary, Warren W. Pettyjohn, Dover, Del.

Sept. 12-14—OREGON FIRE CHIEFS' ASSOCIATION. Annual Convention, Pendleton, Ore. (At time of Round Up Week.) Secretary, Thomas Coates, Tillamook, Ore.

Sept. 12-15—INTERNATIONAL MUNICIPAL SIGNAL ASSOCIATION. 43rd Annual Convention, Lord Baltimore Hotel. Baltimore, Md. Secretary, Irvin Shulsinger, 7 East 42nd Street, New York City.

Sept. 12-15—LOUISIANA STATE FIREMEN'S ASSOCIATION. 33rd Annual Convention, Minden, La. Secretary, T. E. Wright, Houma, La.

Sept. 14-15—MISSOURI ASSOCIATION OF FIRE FIGHTERS. 13th Annual Convention, Trenton, Mo. Secretary-Treasurer, M. J. Mulvoy, 3500 South Grand Blvd., St. Louis, Mo.

Sept. 15-17—INTERNATIONAL ASSOCIATION OF POLICE AND FIRE SURGEONS. Annual Convention, Atlantic City, N. J. Secretary, Dr. Harry M. Archer, 47 West 85th Street, New York City.

*Sept. 19-22—PACIFIC COAST ASSOCIATION OF FIRE CHIEFS. 45th Annual Conference and Fire School, Salt Lake City, Utah. Secretary, ex-Chief Jay W. Stevens, Merchants' Exchange Bldg., San Francisco, Cal.

Sept. 20-21—IOWA FIREMEN'S ASSOCIATION. 61st Annual Convention, Belle Plaine, Iowa. Secretary-Treasurer, Paul A. Soener, Independence, Iowa.

Sept. 20-22—GREAT LAKES FIRE CHIEFS' ASSOCIATION. Annual Convention, Kokomo, Ind. (Jointly with Indiana State Fire Chiefs' Association.) Secretary-Treasurer, Chief R. E. Mottesheard, 4501 Schaefer Road, Dearborn, Mich.

Sept. 20-22—INDIANA STATE FIRE CHIEFS' ASSOCIATION. 12th Annual Convention, Kokomo, Ind. (Jointly with Great Lakes Division, I. A. F. C.) Secretary, Archie McCabe, Muncie, Ind.

Sept. 23-24—NEW JERSEY STATE FIREMEN'S ASSOCIATION and NEW JERSEY STATE FIRE CHIEFS' ASSOCIATION. 61st Annual Convention, Atlantic City, N. J. Secretary, Firemen's Association, Evan F. Benners, 602 Chamber of Commerce Bldg., Newark, N. J. Secretary, Chiefs' Association, Fred A. Trowbridge, Morristown, N. J.

Sept. 26-29—CALIFORNIA STATE FIREMEN'S ASSOCIATION. 16th Annual Convention, Santa Barbara, Cal. Secretary-Treasurer, Harry E. Strasser, P. O. Box 506, San Diego, Cal.

Sept. 27-30—INTERNATIONAL ASSOCIATION OF FIRE CHIEFS. 66th Annual Conference, Roosevelt Hotel, New Orleans, La. Secretary-Treasurer, Ex-Chief James J. Mulcahy, 16 Franklin Ave., Yonkers, N. Y. Chairman, Exhibits, Chief James T. Keegan, Salvage Corps., 227 Washington Street, Newark, N. J.

Sept. 27-30—SOUTHWESTERN ASSOCIATION OF FIRE CHIEFS. 38th Annual Meeting (during I. A. F. C. Convention), Hotel Roosevelt, New Orleans, La. Secretary-Treasurer, Chief J. Ray Pense, Stillwater, Okla.

Oct. 4-6—FIREMEN'S ASSOCIATION OF THE STATE OF PENNSYLVANIA. 59th Annual Convention, Lebanon, Pa. Secretary, Chief Charles E. Clark, P. O. Box 217, Wayne, Pa.

Oct. 18-20—ILLINOIS FIREMEN'S ASSOCIATION. 51st Annual Convention, Père Marquette Hotel, Peoria, Ill. Secretary, Asst. Chief Roy W. Alsip, Champaign, Ill., or Chief Frank Hazzard, Peoria.

Oct. 18-20—NEBRASKA STATE VOLUNTEER FIREMEN'S ASSOCIATION. 57th Annual Convention, Freemont, Neb. Secretary-Treasurer, Louis A. Novak, Room 5, Koehn Bldg., Norfolk, Neb.

*Oct. 19—FIRE CHIEFS' EMERGENCY PLAN OF WESTCHESTER COUNTY. Regular Meeting, Halstead Manor Fire House, Mamaroneck, N. Y. Secretary, Captain Howard Geer, Fire Headquarters, Rye, N. Y.

Oct. 21-22—ALABAMA STATE FIREMEN'S ASSOCIATION. 3rd Annual Convention, Mobile, Ala. Secretary, George E. Crossett, 1916 6th Ave., North, Birmingham, Ala.

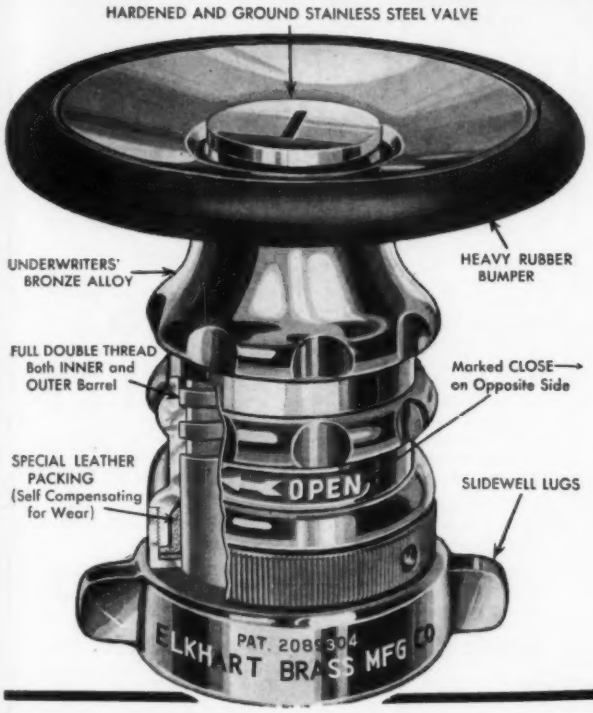
*The notices marked with an asterisk are either appearing for the first time or have been changed since the preceding issue.

Fire Wardens Dine

The annual turkey dinner and meeting of the Middlesex County, Mass., Forest Fire Wardens' Association was held on May 19 in the town hall at Tewksbury. About 250 Chiefs, firemen, and wardens were present. The principal speaker was Representative Ira Ward, of Plymouth. John Campbell, Winchester, was re-elected president. The other officers chosen were Chief Warren Belcher, Winthrop, First Vice-President; Chief Ernest N. Bartlett, Billerica, Second Vice-President; and Lieutenant Tebbetts, Woburn, Secretary-Treasurer. Chief Irving C. Waite, Bedford, Ex-Chief Walter W. Shelton, Burlington, and Harold Conron, Reading, were chosen as the Executive Committee. Following a short business meeting, there was a vaudeville show and motion pictures.

HARRY BELKNAP.

ELKHART'S FAMOUS MYSTERY FOG NOZZLE *Improved!*


HARDENED AND GROUND STAINLESS STEEL VALVE
UNDERWRITERS' BRONZE ALLOY
HEAVY RUBBER BUMPER
FULL DOUBLE THREAD Both INNER and OUTER Barrel
Marked CLOSE on Opposite Side
SPECIAL LEATHER PACKING (Self Compensating for Wear)
SLIDEWELL LUGS
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STUDY the features indicated on the illustration of ELKHART'S MYSTERY FOG NOZZLE—they're exclusive NEW improvements that make the MYSTERY the last word in fog nozzles.

When adding new equipment, insist on getting the genuine MYSTERY nozzle with its stainless steel buffer valve, double-thread engagement, self-compensating leather packing, slide-well lugs, and raised letters in the barrel that instantly indicate to you the operating directions. Write for literature and prices.

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New Ideas

REALIZING that the purchasers of new pumping engines assume a heavy responsibility, the makers of Hale Fire Pumps have never presented a new pump model, improvement or invention, without ample, dependable evidence to prove their value.

The growth and reputation for dependability of the Hale Fire Pump Co. have increased steadily for twenty-one years under a policy that *welcomes and develops new ideas* . . . but invariably subjects them to the severest tests possible before putting them on the market.

Write today for the Catalog and Folders on the complete line of Hale Pumps.

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708-716 Spring Mill Avenue
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FIRE PUMPS HALE CONSHOHOCKEN PA

AFTER all, a good badge is a sensible investment. Not everyone can wear a fireman's emblem of service. You men who have devoted your lives to saving life and property should be proud of your badge.

You will be if you wear a BRAXMAR BADGE. Over fifty-five years of experience goes into every badge you buy.

Catalog on request.

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BRAXMAR BADGES

Standard for Over Fifty-Eight Years

Portable
ELECTRIC PLANTS
FOR FIRE DEPARTMENT
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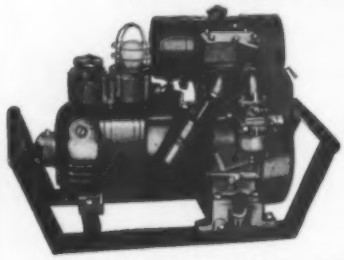

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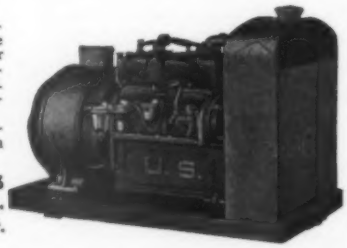
1200 WATTS—4 CYCLE—QUICK STARTING
This 1200 watt, portable unit has been designed expressly for fire department use. It is small, light, compact and equipped with carriers for easy portability out on the job. Air-cooled 4-cycle engine 2⅝" bore x 2⅜" stroke. 2.4 H.P. 2 gallon fuel tank.

LARGER SIZES
Larger sizes are available. Illustration to the right is 5 KW 4-cylinder Portable Unit. Automatic remote control. Write for complete information.
Also automatic emergency units for alarm systems.



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AND MAKE THE NEW ONES BETTER . . . . . with

ROSS RELIEF VALVES

THERE are many pumpers throughout the country that have been modernized with ROSS Relief Valves and, through their addition, men, hose lines and apparatus are amply protected against shock due to starting of pumps or shutting off hose nozzles.

ROSS Relief Valves cannot freeze due to a protective heating jacket connected either to cooling system of the engine or the exhaust pipe.

Pressure range to 300 lbs. Capacity 1,000 gallons per minute! Also High Pressure Valves up to 750 lbs. pressure, of 1,400 gallons per minute capacity. Send for complete data.

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Waterous Dependable
ESTABLISHED 1886

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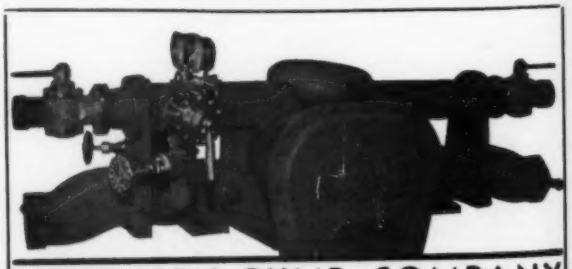


NORTHERN PUMP COMPANY
ESTABLISHED 1907
MINNEAPOLIS, MINN.

State Aids Massachusetts Chiefs

Fire Departments in Massachusetts are afforded the facilities of many state departments in apprehending arsonists, or carrying on fire prevention work. These were described briefly by Eugene M. McSweeney, Public Safety Commissioner, in a talk given at the May meeting of the Fire Chiefs' Club in Boston. He said:

"The days of the bucket brigade and hand tubs are now only a memory. We can no longer be satisfied with brawn, courage or initiative. We must more and more rely upon science, which the skill of engineers and the genius of science have made available to us.

"Keeping pace with the times and endeavoring to be at least one jump ahead of the criminal, the Department of Public Safety maintains a modern laboratory, and, it is the resources of this division of our department that I am happy to place at your disposal. If the Chemical Laboratory can assist you in determining whether or not certain liquids, compounds or other materials are hazardous, you are welcome to use the laboratory to have such articles analyzed. Merely contact the Fire Marshal's Office and the complete service of the laboratory will be afforded you.

"In line with laboratory work, there is also a Bureau of Photography, which is maintained on a 24-hour-a-day basis. If you have a suspicious fire where setups or other evidence of incendiarism is discovered, contact the inspector on the district at once and a photographer will report to the scene immediately. There are several expert photographers in this bureau who are available at all times. Also, if you should have an exceptionally hazardous condition existing on a certain premise, it will be possible for this department to supply a photographer to take pictures of this condition with a view to aiding you either in prosecuting for some violation of a law or regulation or, at least, that the photograph may bring about an abatement of the hazard.

"Radio is now an essential feature of Police and Fire Department service, and can be utilized in many ways. The Department of Public Safety has, in addition to its several broadcasting stations, a mobile transmitting and receiving station, which could be of service to Fire Departments, in event of the fire alarm or telephone service being disrupted by fire, flood, or other disasters. If your communication systems should go out in any manner, call on this Department for the services of our Mobile Station. This Mobile Station has been used on many occasions, and you Fire Chiefs can rest assured that it will be at your disposal, should the emergency arise.

"There are also many other facilities of this department which are at your disposal, such as the Building and Boiler Inspection Division, and others which specialize in technical phases of fire prevention and safety.

"According to the annual report of the State Fire Marshal, there was a decrease of $375,802.72 in the amount of loss for 1937 as compared with the preceding year. There were less dwelling house fires, involving a property loss of $90,555.98 less than the previous year. The decrease in the amount of loss certainly should be gratifying to all of us.

"We know your problems and your work and you know ours. We are working together for the common good, to protect life and property."

N. F. P. A. Meets at Atlantic City

In addressing the forty-second annual convention of the National Fire Protection Association held at Atlantic City, N. J., Robert S. Moulton, Boston, estimated the 1937 fire losses in the United States at $285,000,000 or $8,000,000 below the 1936 figures. The largest loss of the year was the burning of the Hindenburg at Lakehurst with a loss of almost $4,000,000. There were twenty-three fires in which the loss was $250,000 or more. This is nineteen lower than for the same group in 1936.

Chief Daniel B. Tierney, Arlington, Mass., President of the I. A. F. C., presented a paper on "The Future of the International Association of Fire Chiefs," in which he pointed out the features of the educational program now being inaugurated.

The Committee on Forest Fires reported that ninety-three per cent of forest fires in this country were man made. Seven per cent were caused by lightning.

The association adopted a resolution requesting Attorney General of the United States to recommend the passing of an amendment to the crimes act, making it unlawful for any person to flee from one state to another for the purpose of avoiding prosecution or giving testimony in arson cases.

Dr. David J. Price, U. S. Department of Agriculture, Washington, reported that there was a marked reduction in dust explosions in industrial plants in recent years, particularly the food plants. He said that more attention must be given to dust explosion prevention in grain elevators.

The officers elected are Samuel D. McComb, New York, President; Alvah R. Small, Chicago, Vice-President; David J. Price, Washington, Vice-President; Franklin H. Wentworth, Boston, Secretary-Treasurer and Managing Director; Albert T. Bell, Atlantic City, Chairman of the Board of Directors.

Graphic Education

The Fire Prevention Bureau of the Detroit Fire Department is presenting before the public, in graphic manner, the fire perils that exist and how they may be avoided. A story of the work is contained in a recent issue of *The Detroiter*.

As the bureau had limited funds, it secured the cooperation of a number of corporations. The Chevrolet Motor Car Company provided a delivery car for transporting the material, a sound projector was provided by Jam Handy Pictures, Inc., motion pictures were supplied by the Aetna Insurance Company, Fisher Body Corporation, and the United States Government.

Dates are being arranged locally for showings and demonstrations.

New Signal System

Patents have been granted to Paul G. Brack, Somervile, Mass., for a new type of signaling system.

With this arrangement, when a company responds to an alarm, a circuit is closed which operates visual signals in all stations on this hook up. It indicates to the others that that particular company is out, and that any call for that district must be answered by the others. When the company returns, the circuit is broken to indicate that the call boxes in the district will be serviced by the company.

50 Years a Fireman

More than two hundred persons gathered at the American Legion clubhouse, Riverside, Cal., to honor Chief E. H. Mosbaugh who observed his fiftieth anniversary as a fireman. His fire service dates from March 18, 1888.

In 1899 he went to Redlands where he served in the Fire Department for nineteen years, of which twelve years were as Chief. He went to Riverside in 1919, and after serving as Assistant Chief, was promoted to Chief in 1930.

He was presented a gold diamond set watch fob in the form of a fire badge.

Telegrams were read from Fire Chiefs and officials from many parts of the United States.

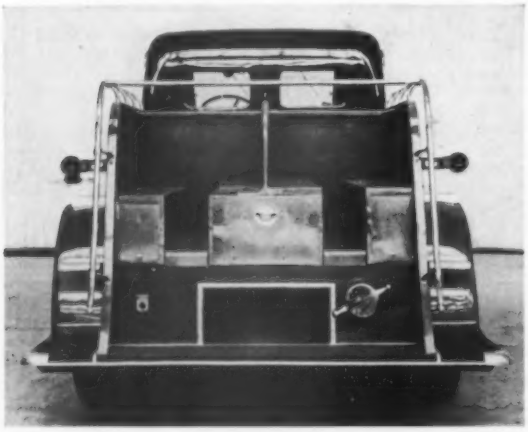
Chief Gardner, Kansas City Patrol, Has New Car

A Packard Eight was purchased for the use of Chief W. H. Gardner of the Underwriters Fire Patrol, Kansas City, Mo. The car is equipped with shatterproof glass for windows and windshields, a first aid kit, and a Federal doubletone siren with red flashing light. The car is painted a dark red.

Enclosed Pumpers for Chicago

Five pumpers, completely enclosed, and along designs developed by the Chicago Fire Department, are being delivered by the Mack-International Motor Truck Corporation to Chicago.

The pumpers have accommodations in the cab for a crew of nine men, sitting in three rows of seats. The body is twenty-seven feet long, almost eight feet high, and eight feet wide. Each unit carries about 1,500 feet of 2½ and 3-inch hose. Inside the body are the suction hose and a ladder, and the suction connection is at the rear.



Rear View of Apparatus

It is equipped with a 4-stage pressure volume centrifugal pump of 1,000 g.p.m., capacity. At a test this type pumper delivered 1,563 g.p.m., at 120 pounds pressure.

Although the men can ride inside the cab, Michael J. Corrigan, Fire Commissioner, has ordered that one man ride in the open at the rear to all fires, so that in case of an accident there will be one man clear of the wreck. In the design of the unit, every effort was made to keep equipment off the sides.

Side View of Chicago's New Type Pumper

Westchester Plan Holds Tenth Annual Dinner

The Fire Chiefs Emergency Plan of Westchester County held its tenth annual dinner and meeting at the Elks Club, White Plains, N. Y., on the evening of Wednesday, May 18, with 179 present. President Roi B. Woolley presided and also acted as toastmaster. There were no set speeches, but the Plan was welcomed in very short addresses by Mayor Fish, Fire Commissioner Brennan and Chief H. Abbot Griffen, of White Plains.

Chief James J. Deasy, former Battalion Chief of the New York Fire Department, was called to the front by the President, and a card of Honorary Life Membership was conferred upon him, in recognition of his cooperation with the Plan.

The report of the Ways and Means Committee took a novel form. It was in the nature of a play, in which a number of the Chiefs took the parts of the village officials of Tarrytown, N. Y. The scene was a meeting of the Mayor and Village Board and the question before them was the decision as to the appropriation of $50 to be turned over to the Fire Chiefs' Emergency Plan as the village's quota toward the financing of the Plan. A "taxpayer" in the audience asked for information as to the objects of the Plan, and was assured that it was neither a fraternal, beneficial nor political organization, but was formed by the Chiefs of the county for the sole purpose of mutual assistance and improvement in firemanic efficiency. This evidently satisfied the "taxpayer," for he immediately withdrew his objection and the Board adopted the resolution making the appropriation.

At the conclusion of the sketch, the President announced that it was an actual reproduction of the meeting of the Tarrytown Board, that that village and a number of others in the county had already appropriated amounts toward the financing of the plan, and it was hoped that practically all Westchester municipalities would follow suit. It was also announced that the $50 appropriated by Tarrytown included a year's membership dues for the three Chiefs of the village.

The Nominating Committee's list of candidates for election to office in the Plan was read by Fire Commissioner Earl Krows, Hastings, its Chairman. On motion, the entire ticket was elected. The list, headed by Ex-Chief Woolley, renominated for a third term as Chairman, was published in the May issue.

An excellent entertainment was given, which was climaxed by the presentation of the moving picture "She Loved a Fireman."

Michigan Chiefs to Meet in August

The thirteen annual convention of the Michigan State Fire Chiefs' Association is to be held at Muskegon, Mich., August 9 to 11, with headquarters at the Occidental Hotel.

Chief George F. Dansbury, Grosse Pointe Farms, Secretary of the association, has been appointed Chairman of the Exhibit Committee. Exhibit space rate has been set at a nominal charge.

Fire House Dog Had Rabies

Twenty members of the Cos Cob, Conn., Fire Department were inoculated on April 20, when it was definitely determined that their mascot, "Spot," a Dalmatian, died of rabies. The firemen were inoculated when it was reported that several of them had been nipped by the pet animal and others had had contact with him. "Spot's" head was sent to the headquarters of the Department of Health at Hartford to be examined and it was discovered to be a positive case of rabies.

THOMAS F. MAGNER.

Quincy Forms Spark Club

A new organization of fire fans has been formed in Quincy, Mass. It is known as the Quincy Sparks' Club and was established on March 7 when the first meeting took place in the Atlantic Community House. George Shirley was appointed Acting Chairman and Dr. Vincent Strout was named as Acting Secretary. Committees were selected to draw up constitution and by-laws, and other details. It was voted to limit the club to twenty-five members.

HARRY BELKNAP.

400 Take Maryland Course

Firemen's classes, conducted by the University of Maryland, are now well advanced.

There are about 400 volunteers enrolled in the classes, which are held in fire houses all over the state. The instructors are all volunteer Chiefs and well versed in this field.

Scores of volunteers have learned for the first time the science of fire fighting. Few have dropped out and numerous firemen have enrolled in the latter stages of the course. The University of Maryland hopes to develop this course into a four-year program starting in 1939. The present course is forty hours in length. The instructors for the present course are: Thomas G. Basil, Annapolis; Simon Clopper, Smithsburg; Curtis C. Larrimore, Easton, and John H. O'Lexey, Jessup.

OTIS SMITH.

Clear the Way by Night or Day!

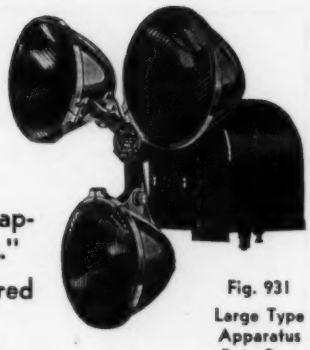


Fig. 931
Large Type Apparatus Roto-Rays

Even the heaviest traffic is cleared for your apparatus by Buckeye "Warning Signals that Warn."

ROTO-RAYS have three powerful revolving red lights that compel attention.

The MOTO-RAY sweeps danger out of your way with the wide-sweeping motion of the red beam.

The Buckeye EXHAUST WHISTLE sounds above the heaviest traffic roar and clears the way for you.

Send for complete details on all Buckeye Fire Department equipment.

Fig. 937
Heavy-Duty Exhaust Whistle

Fig. 930
Junior type Roto-Rays for Chiefs' cars, ambulances and Police Department emergency cars of all kinds.

BUCKEYE IRON & BRASS WORKS
324 East Third St. Dayton, Ohio

BUCKEYE
Shut-off Nozzles · Roto-Rays · Whistles

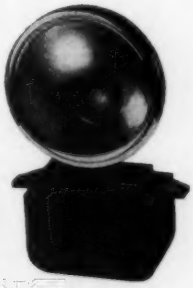


Fig. 950
Moto-Ray

EASTMAN
and **EASTMAN-BARKER**
DELUGE GUNS

deliver far-reaching, powerful, solid streams with machine-gun accuracy and a minimum friction loss.

Compactness for mounting on apparatus, flexibility for quick placing in position, ease in manipulation of volume streams. Send for literature illustrating and describing many other features.

EASTMAN and EASTMAN-BARKER Deluge Guns will be on display at the convention

SAMUEL EASTMAN COMPANY
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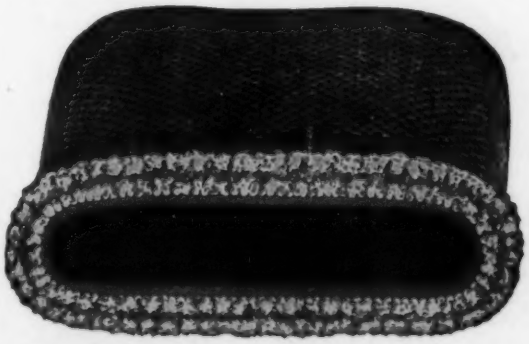
LITTLE CITIES . . .
TOWNS and VILLAGES . . .
all over the United States are using



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Every foot is expertly made from selected materials . . . thoroughly inspected . . . rigidly tested. Fire Chiefs should have our samples and prices. Write today.

QUAKER CITY RUBBER CO.
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PHILADELPHIA . . . . . PENNA.
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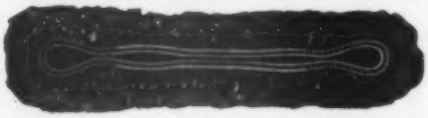
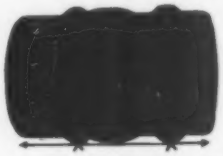


This is the new LIGHT WEIGHT
BI-LATERAL FIRE HOSE



This hose will stand 900 pounds pressure and weighs but 45 pounds to the section uncoupled.

Here's the new DROP-FORGED rocker lug coupling (not cast bronze), with the swivel-protecting feature.

This coupling will stand several expansions and can be used over and over again, saving your city at least 20c to 30c per foot on future hose purchases.

When in the market, let us show you that we can give you the best service obtainable for the least money.

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A complete line, including
Wax Treated - Solid Multiple Woven
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Manufactured by
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"Territories Available"

GOODALL Fire Hose
"SUPER-X" "GLADIATOR"
For high pressure and most severe service.
"SENTINEL"
Somewhat lighter in weight, but very durable.
"FLEXO"
For the Fire Department preferring an extremely flexible hose.
Any of the above can be furnished wax and gum treated, and flat cured.
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Let us quote on your requirements.
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COMFORTABLE AS YOUR OLD FELT HAT: WON'T SHAKE OFF
Never go to a fire without the protection of a good helmet. It may save your life.
DESIGN - - MATERIALS - - CONSTRUCTION
ALL PROVED RIGHT BY YEARS OF ACTUAL USE
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Why get sick?
Price $48 per Dozen
Upon receipt of $4.00 one will be forwarded as a sample, postpaid.
H. S. COVER
Station A, SOUTH BEND, IND.

Air Compressor Fire Company

San Francisco, Cal., has what is believed to be the first air compressor fire company, with air operated tools and a compressed air operated device for removing gases from a building or supplying air to it. The apparatus was constructed at the department shops.

Lamb Air Mover

This apparatus has an air compressor of 315 cubic feet capacity at 100 pounds pressure and a number of reels of air hose. It carries a pavement breaker, jack hammer, pneumatic saw and other tools. It also has gas masks, forcible entry tools, etc.

The apparatus was designed by Capt. Edward Lamb, San Francisco Fire Department, and is to be manufactured soon by one of the apparatus manufacturers.

Capt. Lamb has a patent on the air mover which is used on this truck, and which is being made by the Mine Safety Appliances Company. This consists of a nozzle as illustrated, an inlet and outlet for a compressed air line. In operation, the compressed air flows through the air line, by an opening at the base of the nozzle, and then out through another opening by way of a discharge line. As the compressed air rushes by the opening at the base of the nozzle, it sucks in and carries along with it some of the air or gas which it is desired to be removed. This mixture of gas and air is then discharged at a point outside of the building.

It is claimed by both the inventor and manufacturer that this device, which is made with either a three or six-inch nozzle, is capable of moving a large volume of air. Through a flow of forty-one cubic feet per minute of compressed air, fifty pounds pressure, it is possible to get a delivery of 561 cubic feet of air.

Henry Douglass, Worcester, Dead

Henry Douglass, former Deputy Chief of the Worcester, Mass., Fire Department, died at the age of seventy-two, one year following his retirement. He had been ill for three months.

Early in life he went to sea on a sailing vessel of which his uncle was master. For a time he was on a ship trading along the coast of the Far East.

He came to Worcester in 1889 and became a call fireman in 1895. He became a Captain on May 5, 1909 and a District Chief in 1920. Two years later he was promoted to Deputy Chief.

Chief Douglass was a thirty-second degree Mason.

He is survived by his widow and a son who joined the Fire Department on March 3, 1937.

New Haven Plan Elects Officers

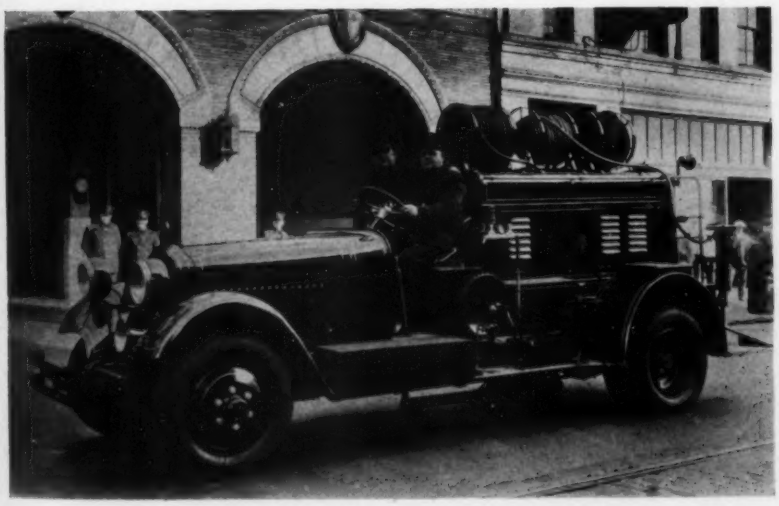
The annual meeting with the nomination and election of officers of the New Haven County Fire Chiefs' Emergency Plan was held at the Sea Shell Inn, Madison, Conn., on May 17. A steak and lobster dinner was served to 120 of the members present. The following were elected to office for the coming year:

President, William Russell of Waterbury; First Vice-President, Chief James Swan of Seymour; Second Vice-President, Asst. Chief Francis O. Spaine of New Haven; Treasurer, Deputy Chief Arthur Harris of Meriden; Secretary, Chief John Pachl of New Haven Annex. Directors for the coming year are: Chief Lloyd Cameron of West Haven; Asst. Chief Clark Howlett of Orange; Chief Ernest Hansen of East Haven; Chief James Brett of Ansonia; Chief Russell Pollard of Derby; Chief M. R. Brockett of North Haven; Chief James Downey of Wallingford and Chief Milton Galvin of Naugatuck.

Asst. Chief Francis O. Spaine of New Haven was toastmaster for the evening and called upon the various officers and guests for remarks. The principal speaker was Senator Edward Mulcahy, Jersey City, N. J. Included among the visiting fire officials were Chiefs Morgan J. Farrell, Bristol; Michael J. Lawton, Middletown; J. Nedney, Westfield; Hubert P. White, Groton; Allen D. Judson, Stratford; T. H. Donnelly, West Hartford, and Fire Commissioner William M. O'Hara, Milford.

Retiring President John Pachl, New Haven Annex, was presented with a handsome electric clock by the Association. A committee headed by Asst. Chief Raymond C. Spencer, Hamden, was named to make arrangements for a dinner dance in conjunction with the next meeting, which will be held on June 14 at the Waverly Inn, Cheshire, Conn.

THOMAS F. MAGNER.



Air Compressor Fire Company of San Francisco

Large Attendance at Fairfield Chiefs' Annual Dinner

The annual meeting and dinner of the Fairfield County Fire Chiefs' Emergency Plan was held on the evening of Wednesday, May 25, at Dorlons, East Norwalk, Conn., with a large attendance of Chiefs, city officials and guests. Ex-Chief Bernard Scully, President of the Plan, at the conclusion of the dinner, opened the annual meeting by calling upon Mayor Stack, of Norwalk, who welcomed the members.

The entire ticket of new officers was elected. This list was published in the last issue of FIRE ENGINEERING. Chief Scully then turned the meeting over to the newly elected President, Chief Thomas Boyle, Noroton, who, at the conclusion of the election, relinquished the chair to Dr. Moore, Norwalk, Toastmaster. A handsome wrist watch was presented to Ex-Chief Scully, the retiring President.

The toastmaster called upon a number of the officers and guests seated at the head table, who made short addresses. This was followed by an excellent entertainment, which lasted until the early morning hours.

Aroostock County Chiefs Meet

All officers of the Aroostock County Fire Chiefs' Association were re-elected at a meeting held on May 18 at Presque Isle, Me. Seventy-five Chiefs attended the dinner. The association will meet in Fort Fairfield in October, the date to be decided later.

Milford Host to Firemen

The Arctic Engine Company of Milford, Conn., is busy completing plans to entertain the members of the Connecticut State Firemen's Association on August 19 and 20. The Arctic Company will round out one hundred years of organization this year. The Committee in charge of the two-day program is as follows: A. Miles Nettleton, Chairman; Harry M. Merwin, Honorary Chairman; Stanley W. Sheperd, Vice-Chairman; George A. Miller, Vice-Chairman; Raymond Metzler, Secretary, and Harry Bradley, Treasurer.

THOMAS F. MAGNER.

FALSE ALARMS

RESEMBLANCE

Only those who are or who have been members of a country volunteer Fire Department can fully appreciate the excitement when a barn on a farm burns.

There was plenty of excitement at this fire. Men and even women were running around with buckets of water, and some of the animals were left to shift for themselves.

A volunteer heard a cow bellowing at the nearby stream, and saw that her calf was drowning. He plunged in and rescued the calf.

Sometime later he related the incident at the garage, which also served as fire headquarters.

"That cow sure was grateful. When I brought the calf out the cow came over and licked my hand."

"You're wrong," remarked another. "That cow probably thought she had twins."

The alarm rang. One of the men rushed over to an adjoining house. He shouted, "Listen, mister; finished or not, we gotta have that ladder back. We're going to a fire."

FINANCIAL RISK

Firemen break up the strain of tense duty by arranging smokers now and then. These prove to be enjoyable, but sometimes something happens that is not on the program.

For example, there was the case of the fellow who should have gone straight home after the smoker, but didn't. He was very much surprised at finding himself swathed in bandages, resting in a hospital bed. When his buddy of the night before called, he asked him what had happened.

"What happened! You were drunk, and you bet you could jump out of the window and fly around the block."

"Did I?" he asked in amazement. "Why didn't you stop me?"

"Stop you? I had ten dollars bet on you."

Girls who keep on slapping faces
Don't see sights and don't go places.

LESS HANDS AND FEET

The meeting was well attended. The county fire warden gave an interesting talk on the protection of forests. In his address he used the term "virgin forest," a number of times. This puzzled one of the audience. He turned to his neighbor and asked what the term meant.

The neighbor was an Irishman and without hesitancy, he explained:

"Shure now, a virgin forest is a place where the hand of man has never set foot."

A STAND-UP

Whatever one could say about Joe, it was not that he lacked persistency. For example, Joe met an attractive girl. He met her in a most odd manner. There was a grease fire at the Cozy Korner eat place, and she was a sweet, little waitress who helped the firemen get the fire under control. Joe made a date with her for that night.

He was asked the next evening at the station:

"Did you keep the date with your girl last night in all that rain?"

"Naw. I waited for her two hours, and she didn't come, so I stood her up."

What is burlesque, but backfield in motion.

SUMMER ROMANCE

This little seaside community was not very large, but in the summer time, it did attract a fair influx of visitors, and a constant summer residential group. The Fire Department was not imposing, but the house was always in neat condition. One of the wealthy visitors was a fire buff and he spent many hours at the station. He was attracted to a young fellow in the department and he told him if he came to see him in the city in the fall, he might get him a job.

So the fellow came. He was stunned by the sumptuousness of the office building. He got out on the twenty-fifth floor, and the elevator boy pointed in the general direction of the office the caller wanted.

The visitor entered and was met by a colored chap.

"Are you Mr. Green's secretary?" he asked.

"No suh," he replied with a grin.

"Is his secretary around?"

"No suh, not around here."

"Well, could I see Mr. Green?"

"He ain't hyah, either."

"Well, I think I'll just sit here and wait for him," said the visitor.

"Why do that suh? Just go into his office. He doesn't use this lavatory much."

The seven ages of a woman—the infant, the little girl, the miss, the young woman, the young woman, the young woman, the young woman.

AN EMERGENCY

While paid firemen have definite tasks to do in case of fire, and these are supposed to be carried out in a specified manner, one can never tell what a volunteer will do.

The story is told of one who, with others, went out to extinguish a bonfire that had gotten out of bounds. Looking down on his trousers, he screamed:

"Help! I'm burning up."

And he rolled over and over on the ground.

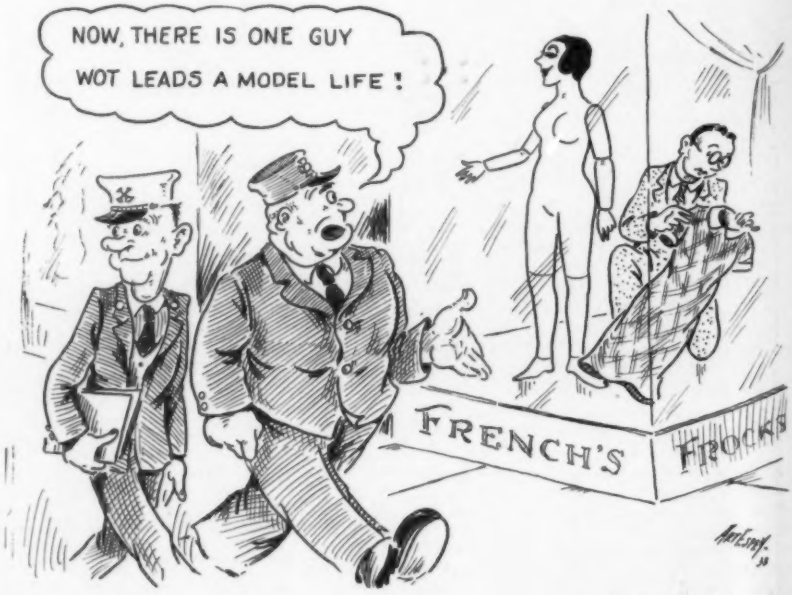
Finally he discovered that he had put his flashlight in his trouser pocket without snapping the light off.

A DOUBTER

After considerable salesmanship, a fireman sold a ticket to a merchant. The card was for the annual fire-police baseball game. In order to leave the customer with a good feeling, he remarked:

"You'll see more excitement for two dollars than you ever saw before."

"I doubt it, lad," said the old fellow. "That's what my marriage license cost."



—Drawn by "Art" Espey

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Firemen's Coat and Bunker Pants
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Coat No. 331 and bunker pants No. 341 . . . any size pants, coat up to 35-in. length . . . equipped with detachable wool linings and the famous Midwestern safety snaps that cannot possibly catch on anything. Material in linings, 86 per cent pure wool; linings edged with reinforced rubberized fabric; coat has two outside pockets with snap fasteners; flexible, elastic inner sleeves for wrists—keeps out water, cold and sparks; corduroy lined collar on coat; pants equipped with cloth crotch pads for pole sliding . . . and many other exclusive Midwestern features that make this extra-serviceable outfit most desirable.

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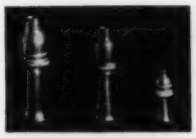

No. 4 No. 3 No. 1

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VAPOR NOZZLE
KILLS FIRE

Latest Discovery of a SCIENTIFIC PHENOMENON

REVOLUTIONIZES FIRE FIGHTING *with*
ACTUAL FOG
Produced by Plain Water Through the

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Vapor Tip for Standard Shut-Off Nozzle.

Cut to fit all size nozzles

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Kills instantly Oil — Gasoline—Lacquer Varnish and ALL other High VOLATILE FIRES!
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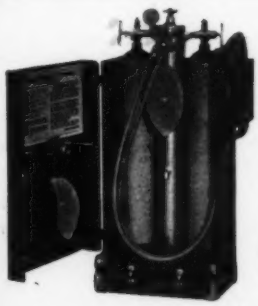

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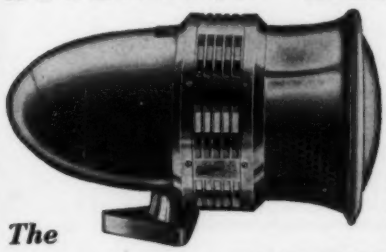

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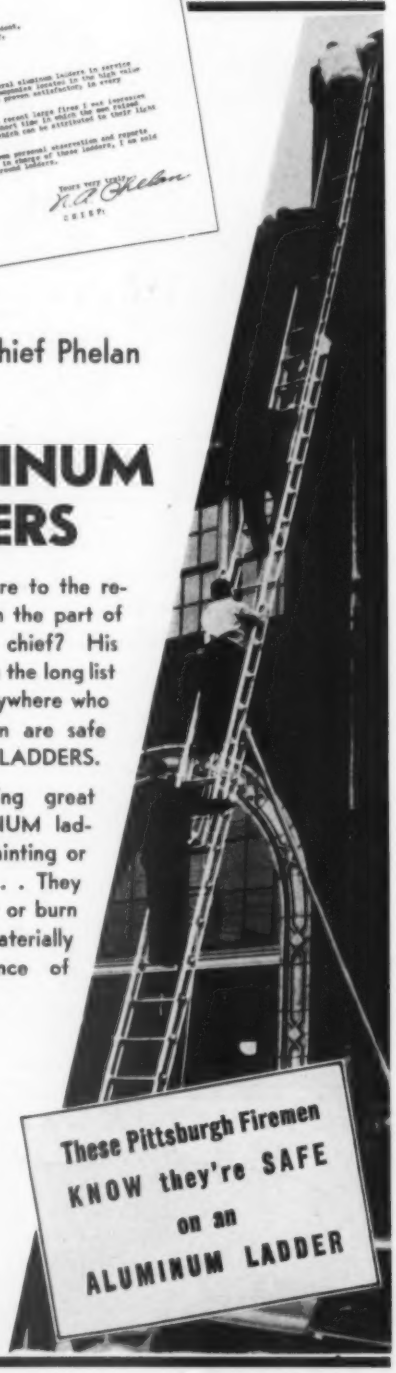

ALUMINUM LADDER CO.
122 Fifth Avenue, Tarentum, Pa.

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JUNE, 1938

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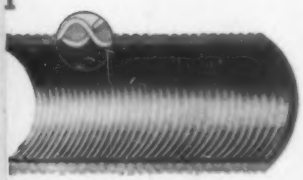
Streamlined FIRE HOSE

How the "Smooth Interior Filler Ply" helps create a Streamlined Fire Hose.

1



Subject an ordinary hose to hydraulic pressure and interior wall will be forced into a corrugated or "washboarded" condition. (See illustration No. 1 at left.) This condition causes excessive friction loss and consequently less water pressure at the nozzle—a weak fire fighting stream.

For a full, vigorous, strong fire fighting stream—with maximum pressure at nozzle due to minimum friction loss, a fire hose must have a smooth, streamlined waterway. Therefore Eureka Fire Hose has an individual set of warp and weft cords which fill in the valleys of the inner ply into which the rubber lining would ordinarily recede when hydraulic pressure is applied—and this set of cords is called "The Smooth Interior Filler Ply" (see illustration No. 2 at the right)—an exclusive Eureka feature.

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